```
=> e honda mitsuo/au
E1          70     HONDA MITSUNOBU/AU
E2          25     HONDA MITSUNORI/AU
E3         325 --> HONDA MITSUO/AU
E4         329     HONDA MITSURU/AU
E5          10     HONDA MITSUTAKA/AU
E6           3     HONDA MITSUTATSU/AU
E7          19     HONDA MITSUTERU/AU
E8          59     HONDA MITSUTOSHI/AU
E9           3     HONDA MITSUYA/AU
E10          8     HONDA MITSUYASU/AU
E11          6     HONDA MITSUYO/AU
E12          9     HONDA MITSUYOSHI/AU

=> s e3 and bcg
L1          46 "HONDA MITSUO"/AU AND BCG

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          30 DUP REM L1 (16 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 30 ANSWERS - CONTINUE? Y/(N):y


L2   ANSWER 1 OF 30  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2006:512935  CAPLUS
DN   145:6612
TI   A method of prime-boost vaccination for AIDS caused by HIV-1 CRFO1_AE
     strain
IN   Honda, Mitsuo; Matsuo, Kazuhiro; Hamano, Takaichi; Izumi,
     Yasuyuki; Promkhatkaew, Duanthanorm; Balachandra, Kruavon; Sutthent,
     Ruengpung
PA   Japan Science and Technology Agency, Japan; Japan as Represented by
     Director General of National Institute of Infectious Diseases; Departement
     of Medical Sciences, Ministry of Public Health, Thailamd
SO   PCT Int. Appl., 39 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   WO 2006057454         A1    20060601    WO 2005-JP22221         20051125
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
             NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
             SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
             YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     JP 2006149234         A     20060615    JP 2004-341283          20041125
PRAI JP 2004-341283        A     20041125
AB   An invention of this application is a method of prime-boost vaccination
     comprising a priming step by a recombinant BCG vaccine and one
     or more boosting steps by a recombinant vaccine, wherein both of the
     recombinant BCG vaccine for priming step and the recombinant
     vaccine for boosting steps have at least one gene of HIV-1 CRFO1_AE
     strain.  In said invention, it is a preferred embodiment that both of the
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recombinant vaccines have at least gag gene of HIV-1 CRF01-AE strain. The present inventors have found that in the case of using recombinant BCG as a priming antigen in combination with other viral vector-based vaccine as a boosting antigen, quite efficiently enhanced cellular immune response could be induced against HIV-1 CRFO 1_AE whereupon the present invention has been achieved.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 30 USPATFULL on STN
AN 2006:247197 USPATFULL
TI Recombination bcg vaccine
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Kanekiyo, Masaru, Tokyo, JAPAN
PI US 2006210586 A1 20060921
AI US 2003-524586 A1 20030813 (10)
WO 2003-JP10303 20030813
20050331 PCT 371 date
PRAI JP 2002-237610 20020816
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 640
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A recombinant BCG vaccine being transformed with an expression vector that has a polynucleotide encoding a foreign antigenic protein, wherein the polynucleotide is a modified one in which a third position of each codon is substituted with G or C without a change of an amino acid. This recombinant BCG vaccine has an excellent expression rate of antigenic protein and, as a result, capable of inducing a sufficient immune response against target infectious disease, cancer, or the like at the same dose as that of the typical BCG vaccine.

L2 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1086167 CAPLUS
DN 145:453348
TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity. [Erratum to document cited in CA143:365230]
AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo
CS Division of Experimental Animal Research, AIDS Research Center, Division of Biosafety Control and Research, National Institute of Infectious Diseases, Toyama 1-23-1, Shinjuku-ku, Tokyo, 162-8640, Japan
SO Journal of Virology (2006), 80(20), 10288
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB On page 12873, Table 1, in groups 1, 2 and 3, rBCG was primed at week 3, followed by booster immunization of rDIs at weeks 50 and 54. In the same table, groups 4 and 5, rDIs was primed at weeks 0 and 12, followed by booster immunization of rBCG at week 50. Then all animals were challenged with virulent SHIV KS661c at week 57. On page 12874, Figure 2: The weeks after immunization shown on the x axis in panel A should read: "3, 7, 11, 19, 27, 35, 50, 53, 54, and 56.". The weeks after immunization shown on

the x axis in panel B should read: "0, 4, 8, 16, 24, 32, 50, 52, 53, 54, and 56.". Although the patterns and magnitudes of the kinetics were almost the same as the original ones, the standard deviation of the ELISPOT data at the peak response at 54 wk after immunization was 500, which was five times more than originally reported. Spot-forming cells were counted by using a KS ELISPOT system after 35 wk of immunization. Before that, we counted SFCs using an inverted microscope. On page 12878, Acknowledgments, paragraph 1, the last sentence of the paragraph should be deleted. These changes do not alter the conclusions of the article.

L2 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1171430 CAPLUS
DN 146:160902
TI Strategy for development of prophylactic and therapeutic vaccines against HIV
AU Matsuo, Kazuhiro; Yamamoto, Naoki; Honda, Mitsuo
CS AIDS Research Center, National Institute of Infectious Diseases, Tokyo, Japan
SO Igaku no Ayumi (2006), 218(10), 923-930
CODEN: IGAYAY; ISSN: 0039-2359
PB Ishiyaku Shuppan
DT Journal; General Review
LA Japanese
AB A review discusses development of prophylactic and therapeutic vaccines such as DNA vaccine, BCG vaccine application and antigen peptides vaccine for HIV infection.

L2 ANSWER 5 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:315079 BIOSIS
DN PREV200600309141
TI Intradermal and oral immunization with recombinant Mycobacterium bovis BCG expressing the simian immunodeficiency virus Gag protein induces long-lasting, antigen-specific immune responses in guinea pigs.
AU Kawahara, Mamoru [Reprint Author]; Matsuo, Kazuhiro; Honda, Mitsuo
CS Univ Occupat and Environm Hlth, Dept Biochem and Mol Pathophysiol, Sch Med, Yahatanishi Ku, 1-1 Iseigaoka, Kitakyushu, Fukuoka 8078555, Japan
mamokawa@med.uoeh-u.ac.jp
SO Clinical Immunology (Orlando), (APR 2006) Vol. 119, No. 1, pp. 67-78.
ISSN: 1521-6616.
DT Article
LA English
ED Entered STN: 14 Jun 2006
Last Updated on STN: 14 Jun 2006
AB To develop a new recombinant BCG (rBCG) vaccine, we constructed rBCG that expresses the full-length Gag protein of simian immunodeficiency virus (rBCG-SIVGag) at a level of 0.5 ng/mg after 3 weeks of bacterial cell culture. Intradermal (i.d.) inoculation of guinea pigs with 0.1 mg of rBCG-SIVGag resulted in the induction of delayed-type hypersensitivity (DTH) responses to both purified protein derivative (PPD) of tuberculin and SIV Gag p27 protein; responses that were maintained for the duration of the 50-week study. In contrast, guinea pigs orally vaccinated with 160 mg of the same antigen exhibited a long-lasting DTH response to the SIV Gag p27 protein, but mounted no response to PPD. Proliferative responses to SIV Gag p27 and PPD antigens were detected in both i.d. and orally immunized animals; however, the levels of PPD-specific responses were significantly higher in guinea pigs immunized by the i.d. than the oral route. A significant increase in the level of PPD- and SIV Gag p27-specific IFN gamma mRNA expression was also detected in both immunization groups receiving rBCG-SIVGag. In addition, both i.d. and oral immunization with rBCG-SIVGag induced PPD- and SIV Gag p27-specific serum IgG responses. Insertion of the SIV gag gene into BCG did not appear to change the ability of rBCG-immunized animals to elicit PPD-specific immune responses. These results indicate that rBCG-SIVGag

has the ability to effectively induce long-lasting, cell-mediated and humoral immunity against both viral and bacterial. antigens in guinea pigs, suggesting that rBCG-Gag has the potential to elicit immunities specific not only for tuberculosis but also for HIV at human doses. (c) 2005 Elsevier Inc. All rights reserved.

L2 ANSWER 6 OF 30 USPATFULL on STN
AN 2005:143826 USPATFULL
TI Radio lan access authentication system
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Izumi, Yasuyuki, Tokyo, JAPAN
PI US 2005123561 A1 20050609
AI US 2003-515253 A1 20021120 (10)
WO 2002-JP12125 20021120
PRAI JP 2002-145132 20020520
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 356
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides a recombinant BCG vaccine transformed by an expression vector having polynucleotide coding for exogenous antigenic protein, characterized in that, the BCG vaccine is used for initial antigen stimulus in immune induction by plural antigen stimulations and also provides a method for the immune induction where the initial antigen stimulus is carried out by the said BCG vaccine and one or more additional antigenic stimulation(s) is/are carried out by non-BCG vaccine expressing the same antigenic protein.

L2 ANSWER 7 OF 30 USPATFULL on STN
AN 2005:62585 USPATFULL
TI Recombinant vaccinia virus vaccine
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Ohsu, Takeaki, Kanagawa, JAPAN
Miyamura, Tatsuo, Tokyo, JAPAN
Matsuura, Yoshiharu, Osaka, JAPAN
Ishii, Koji, Tokyo, JAPAN
Kato, Kenzo, Chiba, JAPAN
PI US 2005053620 A1 20050310
AI US 2004-495974 A1 20040903 (10)
WO 2001-JP10141 20011120
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 849
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a recombinant vaccinia virus strain DIs that possesses a polynucleotide encoding a foreign antigenic protein in the non-essential gene region of the chromosome DNA and expresses the antigenic protein; and provides a highly-safe, vaccinia virus vaccine containing the recombinant virus strain DIs as the active ingredient. The invention also provides a method of using the vaccinia virus strain DIs as a vector for protein expression.

L2 ANSWER 8 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 2
AN 2006:8301 BIOSIS
DN PREV200600008996
TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity.
AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, Ctr AIDS Res, Shinjuku Ku, Toyama 1-23-1, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (OCT 2005) Vol. 79, No. 20, pp. 12871-12879.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 14 Dec 2005
Last Updated on STN: 14 Dec 2005
AB Virus-specific T-cell responses can limit immunodeficiency virus type 1 (HIV-1) transmission and prevent disease progression and so could serve as the basis for an affordable, safe, and effective vaccine in humans. To assess their potential for a vaccine, we used Mycobacterium bovis bacillus Calmette-Guerin (BCG)-Tokyo and a replication-deficient vaccinia virus strain (DIs) as vectors to express full-length gag from simian immunodeficiency viruses (SIVs) (rBCG-SIVgag and rDIsSIVgag). Cynomolgus macaques were vaccinated with either rBCG-SIVgag dermally as a single modality or in combination with rDIsSIVgag intravenously. When cynomologus macaques were primed with rBCG-SIVgag and then boosted with rDIsSIVgag, high levels of gamma interferon (IFN-gamma) spot-forming cells specific for SIV Gag were induced. This combination regimen elicited effective protective immunity against mucosal challenge with pathogenic simian-human immunodeficiency virus for the 1 year the macaques were under observation. Antigen-specific intracellular IFN-gamma activity was similarly induced in each of the macaques with the priming-boosting regimen. Other groups receiving the opposite combination or the single-modality vaccines were not effectively protected. These results suggest that a recombinant M. bovis BCG-based vector may have potential as an HIV/AIDS vaccine when administered in combination with a replication-deficient vaccinia virus DIs vector in a priming-boosting strategy.

L2 ANSWER 9 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 3
AN 2005:399376 BIOSIS
DN PREV200510190449
TI Mycobacterial codon optimization enhances antigen expression and virus-specific immune responses in recombinant Mycobactetium bovis bacille Calmette-Guerin expressing human immunodeficiency virus type 1 Gag.
AU Kanekiyo, Masaru; Matsuo, Kazuhiro; Hamatake, Makiko; Hamano, Takaichi; Ohsu, Takeaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Hasegawa, Atsuhiko; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, AIDS Res Ctr, Shinjuku Ku, 1-23-1 Toyama, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 8716-8723.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005

AB Although its potential for vaccine development is already known, the introduction of recombinant human immunodeficiency virus (HIV) genes to Mycobacterium bovis bacille Calmette-Guerin (BCG) has thus far elicited only limited responses. In order to improve the expression levels, we optimized the codon usage of the HIV type 1 (HIV-1) p24 antigen gene of gag (p24 gag) and established a codon-optimized recombinant BCG (rBCG)-p24 Gag which expressed a 40-fold-higher level of p24 Gag than did that of nonoptimized rBCG-p24 Gag. Inoculation of mice with the codon-optimized rBCG-p24 Gag elicited effective immunity, as evidenced by virus-specific lymphocyte proliferation, gamma interferon ELISPOT cell induction, and antibody production. In contrast, inoculation of animals with the nonoptimized rBCG-p24 Gag induced only low levels of immune responses. Furthermore, a dose as small as 0.01 mg of the codon-optimized rBCG per animal proved capable of eliciting immune responses, suggesting that even low doses of a codon-optimized rBCG-based vaccine could effectively elicit HIV-1-specific immune responses.

L2 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4
AN 2005:114055 CAPLUS
DN 142:334776
TI Vaccination of rhesus macaques with recombinant Mycobacterium bovis bacillus Calmette-Guerin Env V3 elicits neutralizing antibody-mediated protection against simian-human immunodeficiency virus with a homologous but not a heterologous V3 motif
AU Someya, Kenji; Cecilia, Dayaraj; Ami, Yasushi; Nakasone, Tadashi; Matsuo, Kazuhiro; Burda, Sherri; Yamamoto, Hiroshi; Yoshino, Naoto; Kaizu, Masahiko; Ando, Shuji; Okuda, Kenji; Zolla-Pazner, Susan; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo
CS AIDS Research Center, National Institute of Infectious Diseases, Tokyo, 162-8640, Japan
SO Journal of Virology (2005), 79(3), 1452-1462
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB Although the correlates of vaccine-induced protection against human immunodeficiency virus type 1 (HIV-1) are not fully known, it is presumed that neutralizing antibodies (NAb) play a role in controlling virus infection. In this study, we examined immune responses elicited in rhesus macaques following vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin expressing an HIV-1 Env V3 antigen (rBCG Env V3). We also determined the effect of vaccination on protection against challenge with either a simian-human immunodeficiency virus (SHIV-MN) or a highly pathogenic SHIV strain (SHIV-89.6PD). Immunization with rBCG Env V3 elicited significant levels of NAb for the 24 wk tested that were predominantly HIV-1 type specific. Sera from the immunized macaques neutralized primary HIV-1 isolates in vitro, including HIV-1BZ167/X4, HIV-1SF2/X4, HIV-1C12/X4, and, to a lesser extent, HIV-1MNp/X4, all of which contain a V3 sequence homologous to that of rBCG Env V3. In contrast, neutralization was not observed against HIV-1SF33/X4, which has a heterologous V3 sequence, nor was it found against primary HIV-1 R5 isolates from either clade A or B. Furthermore, the viral load in the vaccinated macaques was significantly reduced following low-dose challenge with SHIV-MN, and early plasma viremia was markedly decreased after high-dose SHIV-MN challenge. In contrast, replication of pathogenic SHIV-89.6PD was not affected by vaccination in any of the macaques. Thus, we have shown that immunization with an rBCG Env V3 vaccine elicits a strong, type-specific V3 NAb response in rhesus macaques. While this response was not sufficient to provide protection against a pathogenic SHIV challenge, it was able to significantly reduce the viral load in macaques following challenge with a nonpathogenic SHIV. These observations suggest that rBCG vectors have the potential to deliver an appropriate virus immunogen for desirable immune elicitations.
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 11 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 5
AN 2005:338939 BIOSIS
DN PREV200510120020
TI Specific immune response and pathological findings in BALB/c mice inoculated with recombinant BCG expressing HIV-1 antigen.
AU Wiriyarat, Witthawat; Sukpanichnant, Sanya; Sittisombut, Nopporn; Balachandra, Kruavon; Promkhatkaew, Duanthanorm; Butraporn, Raywadee; Sutthent, Ruengpung; Boonlong, Jotika; Matsuo, Kazuhiro; Honda, Mitsuo; Warachit, Paijit; Puthavathana, Pilaipan [Reprint Author]
CS Mahidol Univ, Siriraj Hosp, Fac Med, Dept Microbiol, Bangkok 10700, Thailand
siput@mahidol.ac.th
SO Asian Pacific Journal of Allergy and Immunology, (MAR 2005) Vol. 23, No. 1, pp. 41-51.
ISSN: 0125-877X.
DT Article
LA English
ED Entered STN: 31 Aug 2005
Last Updated on STN: 31 Aug 2005
AB Recombinant BCGs (rBCGs) containing extrachromosomal plasmids with different HIV-1 insert sequences: nef, env (V3J1 and E9Q), gag p17 or whole gag p55 were evaluated for their immunogenicity, safety and persistent infection in BALB/c mice. Animal injected with, rBCG-pIJKV3J1, rBCG-pSO gag p17 or rBCG-pSO gag p55 could elicit lymphocyte proliferation as tested by specific HIV-1 peptides or protein antigen. Inoculation with various concentration of rBCG-pSO gag p55 generated satisfactory specific lymphocyte proliferation in dose escalation trials. The rBCG-pSO gag p55 recovered from spleen tissues at different time interval post-inoculation could express the HIV protein as determined by ELISA p24 antigen detection kit. This result indicated that the extrachromosomal plasmid was stable and capable to express Gag protein. It was also demonstrated that rBCGs did not cause serious pathological change in the inoculated animals. The present study suggested the role of BCG as a potential vehicle for using in HIV vaccine development.

L2 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:162604 CAPLUS
DN 140:216160
TI Recombinant BCG vaccines against infection, cancer and other diseases
IN Honda, Mitsuo; Matsuo, Kazuhiro; Kanekiyo, Masaru
PA Japan Science and Technology Corporation, Japan; Japan as Represented by Director General of National Institute of Infectious Diseases
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004016280	A1	20040226	WO 2003-JP10303	20030813
	W: IN, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	EP 1535627	A1	20050601	EP 2003-788098	20030813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	US 2006210586	A1	20060921	US 2005-524586	20050331
PRAI	JP 2002-237610	A	20020816		
	WO 2003-JP10303	W	20030813		

AB A recombinant BCG vaccine obtained by transformation with an

expression vector carrying a polynucleotide coding for an ecdemic antigenic protein, which recombinant BCG vaccine consists of a modified type polynucleotide comprising a polynucleotide having the third base of each of the codons thereof substituted with G or C without changing of the type of amino acid. This recombinant BCG vaccine excels in the amount of antigenic protein expressed, so that even with the same dosage as employed for conventional BCG vaccines, the recombinant BCG vaccine can induce satisfactory immune response to target infectious diseases, cancer, etc. In example, recombinant BCG comprising hsp60 gene and HIV-1 gag p24 gene was prepared for use as vaccine.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 6
AN 2004:450507 BIOSIS
DN PREV200400452713
TI The normalization of guinea pig leukocyte fractions and lymphocyte subsets in blood and lymphoid tissues using a flow cytometric procedure.
AU Takizawa, Mari; Chiba, Jo; Haga, Shinji; Asano, Toshihiko; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS AIDS Res CtrShinjuku Ku, Natl Inst Infect Dis, 1-23-1 Toyama, Tokyo, 1628640, Japan
SO Experimental Animals (Tokyo), (July 2004) Vol. 53, No. 4, pp. 321-329. print.
ISSN: 1341-1357 (ISSN print).
DT Article
LA English
ED Entered STN: 24 Nov 2004
Last Updated on STN: 24 Nov 2004
AB Many hematological and immunological parameters remain unclear in the study of the guinea pig. In this study, we established the mean values of blood counts, the percentage of leukocyte fractions and lymphocyte subsets in blood and various lymphoid tissues of the guinea pig with a flow cytometric procedure using MIL4/SSC. The mean counts of WBC and RBC in the blood were lower, and MCV and MCH were higher than those of other rodents, resembling those of humans. Furthermore, the mean percentages of blood lymphocytes were smaller and that of granulocyte was larger than those of other rodents, resembling those of humans. We further established a flow cytometric procedure for lymphocyte subsets and clarified the mean percentages of T- and B-cells, CD4+-, CD8+ and MHC Class II+- T-cells, and CD4-CD8- T-cells. The latter were morphologically larger in cell size and cytoplasm than CD4+- plus CD8+ T-cells, and this subset had a significantly higher percentage in newborn animals. Furthermore, the appearance of the MHC Class II+ T-cell subset was suggested to be a marker of hyper-activation of T-cells in BCG -immunized animals. Thus, both the novel flow cytometric procedure for leukocyte fractions and lymphocyte subsets, and the established normal values will be useful tools in studying guinea pigs as models of various diseases and biological phenomena.

L2 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:931202 CAPLUS
DN 139:394884
TI BCG vector and non-BCG vector encoding antigenic protein for use as vaccine and booster vaccine against infection and cancer
IN Honda, Mitsuo; Matsuo, Kazuhiro; Izumi, Yasuyuki
PA Japan Science and Technology Corporation, Japan; Japan as Represented by Director General of National Institute of Infectious Diseases
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent

LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003097087	A1	20031127	WO 2002-JP12125	20021120
	W: CA, JP, US				
	CA 2494359	A1	20031127	CA 2002-2494359	20021120
	US 2005123561	A1	20050609	US 2003-515253	20021120
	IN 2003DE00709	A	20050311	IN 2003-DE709	20030520
PRAI	JP 2002-145132	A	20020520		
	WO 2002-JP12125	W	20021120		

AB A recombinant BCG vaccine transformed by an expression vector which carries a polynucleotide encoding a foreign antigenic protein characterized by being usable for priming in immune induction via twice or more antigenic stimulations; and an immune induction method characterized by comprising priming with the use of the above BCG vaccine and boostering once or more with the use of a non-BCG vaccine expressing the same antigenic protein. Recombinant BCG (rBCG-SIVgag) and recombinant vaccinia Dis (rDis-SIVgaga) encoding SIV gag gene were prepared and tested.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 15 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 7

AN 2003:37096 BIOSIS
DN PREV200300037096
TI Dynamics of gamma interferon, interleukin-12 (IL-12), IL-10, and transforming growth factor beta mRNA expression in primary Mycobacterium bovis BCG infection in guinea pigs measured by a real-time fluorogenic reverse transcription-PCR assay.
AU Kawahara, Mamoru; Nakasone, Tadashi; Honda, Mitsuo [Reprint Author]
CS National Institute of Infectious Diseases, 1-23-1 Toyama, Shinjuku-ku, Tokyo, 162-8640, Japan
mhonda@nih.go.jp
SO Infection and Immunity, (December 2002) Vol. 70, No. 12, pp. 6614-6620. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 8 Jan 2003
Last Updated on STN: 8 Jan 2003
AB The guinea pig has been utilized as a model for studying infectious diseases because its reactions closely resemble those of humans biologically and immunologically. However, the cytokine responses in this animal remain to be studied. Initially, we established a quantitative assay using a real-time reverse transcription-PCR (RT-PCR) to measure guinea pig gamma interferon (IFN-gamma), interleukin-12 (IL-12), IL-10, and transforming growth factor beta (TGF-beta) mRNA. By preparing primer-fluorogenic probe sets for these cytokines and standard RNA templates corresponding to the target sequence of each cytokine, we obtained linear standard curves essential for quantitative determination. In guinea pigs immunized by intradermal (i.d.) vaccination with the Tokyo strain of Mycobacterium bovis BCG (0.1 mg) or else hyperimmunized with the same vaccine (10 mg) given intravenously (i.v.), peripheral blood mononuclear cells (PBMCs) at 4 weeks showed an increase in IFN-gamma mRNA expression in the latter but not the former animals. However, at week 10, IFN-gamma mRNA expression was markedly elevated in PBMCs, spleen cells, and cells in bronchoalveolar lavage fluid in both the i.d.- and the i.v.-immunized animals, the level of expression being 10 times higher in the latter. In contrast, the expression levels of IL-12 mRNA in PBMCs, spleen cells, and BAL cells were not enhanced in either group at 10 weeks postimmunization. The expression of IL-10 and TGF-beta

increased slightly only in PBMCs. Regardless of differences in the levels of cytokine responses, the magnitudes of the purified protein derivative of tuberculin-specific delayed-type hypersensitivity (DTH) skin reactions for the two groups did not differ significantly at 8 weeks postvaccination. In this study, we quantitatively measured IL-10, IL-12, TGF-beta, and IFN-gamma mRNA in BCG-immunized guinea pigs and showed that the level of IFN-gamma mRNA expression does not necessarily reflect the magnitude of the DTH response, suggesting that there may be an intricate relationship between protective immunity, the level of IFN-gamma, and the DTH response. Thus, our quantitative assay would be of use for the development of vaccines using guinea pig models.

L2 ANSWER 16 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 8
AN 2003:63648 BIOSIS
DN PREV200300063648
TI Oral recombinant Mycobacterium bovis bacillus Calmette-Guerin expressing HIV-1 antigens as a freeze-dried vaccine induces long-term, HIV-specific mucosal and systemic immunity.
AU Kawahara, Mamoru; Hashimoto, Akira; Toida, Ichiro; Honda, Mitsuo [Reprint Author]
CS AIDS Research Center, National Institute of Infectious Diseases, 1-23-1 Toyama, Shinjuku-ku, Tokyo, 162-8640, Japan
mhonda@nih.go.jp
SO Clinical Immunology (Orlando), (December 2002) Vol. 105, No. 3, pp. 326-331. print.
ISSN: 1521-6616 (ISSN print).
DT Article
LA English
ED Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003
AB Induction of HIV-1-specific immune responses was evaluated using a recombinant BCG (rBCG) vector-based vaccine expressing HIV-1 Env V3 peptide (rBCG-pSOV3J1). rBCG-pSOV3J1 was manufactured as a freeze-dried preparation based on good laboratory practice guidelines. Guinea pigs were immunized with the freeze-dried rBCG vaccine by oral administration to test the effectiveness of what is generally considered the most convenient and practical route for vaccination. While delayed-type hypersensitivity (DTH) skin reactions to purified protein derivative were not detected in any of the animals receiving oral rBCG-pSOV3J1, HIV-1 V3J1 antigen-specific DTH responses were detected in all of the immunized guinea pigs 1.5 years after immunization. In addition, significant proliferative responses against HIV-1 V3J1 antigen were measured in peripheral blood mononuclear cells and splenocytes from all animals receiving oral rBCG. Interestingly, intestinal intraepithelial lymphocytes from the animals also exhibited high levels of proliferative activity against HIV-1 V3J1 antigen. These results suggest that oral vaccination of guinea pigs with freeze-dried rBCG-pSOV3J1 induces high levels of functional T cells specific for HIV-1 antigens in both mucosal and systemic compartments and suggest that this approach has potential for use as a vaccine against HIV-1.

L2 ANSWER 17 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 9
AN 2003:19497 BIOSIS
DN PREV200300019497
TI Combined intrarectal/intradermal inoculation of recombinant Mycobacterium bovis bacillus Calmette-Guerin (BCG) induces enhanced immune responses against the inserted HIV-1 V3 antigen.
AU Kawahara, Mamoru; Matsuo, Kazuhiro; Nakasone, Tadashi; Hiroi, Takachika; Kiyono, Hiroshi; Matsumoto, Sohkichi; Yamada, Takeshi; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS AIDS Research Center, National Institute of Infectious Diseases, 1-23-1 Toyama, Shinjuku-ku, Tokyo, 162-8640, Japan

mhonda@nih.go.jp
SO Vaccine, (13 December 2002) Vol. 21, No. 3-4, pp. 158-166. print.
ISSN: 0264-410X (ISSN print).
DT Article
LA English
ED Entered STN: 1 Jan 2003
Last Updated on STN: 1 Jan 2003
AB The development of a successful recombinant Mycobacterium bovis bacillus Calmette-Guerin (rBCG) vector-based vaccine for human immunodeficiency virus type 1 (HIV-1) requires the induction of high levels of HIV-1-specific immunity while at the same time maintaining immunity to tuberculosis. To examine a combined vaccination strategy for enhancement of immune responses specific for HIV-1, guinea pigs were inoculated with either a single or combination intradermal (i.d.), intrarectal (i.r.) and intranasal (i.n.) administration of rBCG-pSOV3J1 which secretes a chimeric protein of HIV-1 V3J1 peptide and alpha-antigen. Significant level of delayed-type hypersensitivity to both V3J1 peptide and tuberculin was induced in guinea pigs inoculated with human doses of rBCG-pSOV3J1 by a combination of intrarectal and intradermal routes. Guinea pigs inoculated by combined routes also had significantly higher titers of HIV-1-specific serum IgG and IgA compared with those animals immunized only intrarectally, which led to the enhanced neutralization activity against HIV-1MN. In addition, the induction of high levels of IFNgamma and interleukin-2 (IL-2) mRNA in PBMC, splenocytes, and intraepithelial lymphocytes from the immunized animals was detected until at least 110 weeks post-inoculation. These results suggest that enhanced immune responses specific for HIV-1 are efficiently induced by combined intrarectal and intradermal immunization with rBCG-HIV, and antigen-specific Th1-type memory cells are maintained for more than 2 years in the immunized animals. Thus, inoculation with rBCG-HIV by combined routes represents an effective vaccination strategy to elicit high levels of HIV-1-specific immune responses.

L2 ANSWER 18 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 10
AN 2002:438698 BIOSIS
DN PREV200200438698
TI Selective expansion of perforin-positive CD8+ T cells by immature dendritic cells infected with live Bacillus Calmette-Guerin mycobacteria.
AU Tsunetsugu-Yokota, Yasuko [Reprint author]; Tamura, Hideto; Tachibana, Mikiko; Ogata, Kiyoyuki; Honda, Mitsuo; Takemori, Toshitada
CS Department of Immunology, National Institute of Infectious Diseases, 1-23-1, Toyama-cho, Shinjuku-ku, Tokyo, 162-8640, Japan
yyokota@nih.go.jp
SO Journal of Leukocyte Biology, (July, 2002) Vol. 72, No. 1, pp. 115-124. print.
CODEN: JLBIE7. ISSN: 0741-5400.
DT Article
LA English
ED Entered STN: 14 Aug 2002
Last Updated on STN: 14 Aug 2002
AB Live, but not dead Bacillus Calmette-Guerin (BCG) is partially protective against infection by Mycobacterium tuberculosis, which causes a disease with high mortality in immune compromised individuals. We have shown that uptake of BCG induces maturation of immature dendritic cells (DCs) regardless of the viability of the bacteria. Importantly, when T cells are cocultured with live BCG-infected DCs, the proportion of CD45RA- perforin+ CD8+ T cells is markedly expanded markedly; however, little expansion is seen when T cells are cocultured with DCs harboring heat-killed BCG. The direct contact of T cells with live BCG-infected DCs was required for the expansion of perforin+ CD8+ T cells. These CD8+ T cells demonstrated a high level of killing activity against BCG-infected macrophages. There was little contribution of cytokines, including IFN-gamma, TNF-alpha, and

IL-12, to the expansion of CD8+ T cells by live BCG-infected DCs. We found that the interaction between BCG-infected DCs and CD8+ T cells through CD40/CD40L was crucial for the expansion and maturation of CD8+ T cells, the process of which was CD4-independent. In contrast, blocking the CD58/CD2 but not the CD40/CD40L interaction reduced production of IFN-gamma without affecting the maturation of CD8+ T cells. This indicates that the production of IFN-gamma and perforin by CD8+ T cells is mediated by distinct signals delivered from BCG -infected DCs. Thus, BCG-specific CD8+ CTL memory cells may be maintained for a long period of time in BCG-vaccinated hosts, and these cells could mature rapidly into effectors through the potent antigen-presenting function of DCs upon mycobacterial infection.

L2 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:832585 CAPLUS
DN 136:117006
TI HIV mucosal vaccine: nasal immunization with rBCG-V3J1 induces a long term V3J1 peptide-specific neutralizing immunity in Th1- and Th2-deficient conditions
AU Hiroi, Takachika; Goto, Hironobu; Someya, Kenji; Yanagita, Manabu; Honda, Mitsuo; Yamanaka, Noboru; Kiyono, Hiroshi
CS Department of Mucosal Immunology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan
SO Journal of Immunology (2001), 167(10), 5862-5867
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
AB In the vaccine strategy against HIV, bacillus Calmette-Guerin (BCG), a live attenuated strain of Mycobacterium bovis, is considered to be one of potential vectors for mucosal delivery of vaccine Ag. We analyzed the induction of the Ag-specific Ab response by nasal immunization with recombinant BCG vector-based vaccine (rBCG-V3J1) that can secrete the V3 principal neutralizing epitope of HIV. Mice were nasally immunized with rBCG-V3J1 (10 μg) three times at weekly intervals. Four weeks after the initial immunization, high titers of V3J1-specific IgG Abs were seen in serum. These high levels of HIV-specific serum IgG responses were maintained for > 12 mo following nasal immunization without any booster immunization. V3J1-specific IgG-producing cells were detected in mononuclear cells isolated from spleen, nasal cavity, and salivary gland of the nasally vaccinated mice. Nasal rBCG-V3J1 also induced high levels of prolonged HIV-specific serum IgG responses in Th1 (IFN-γ-/-)- or Th2 (IL-4-/-)-immunodeficient mice. Further, IgG3 was highest among V3 peptide-specific IgG subclass Ab responses in these immunodeficient mice as well as in wild-type mice. In addition, this Ag-specific serum IgG Abs induced by nasal immunization with rBCG-V3J1 possessed the ability to neutralize clin. isolate of HIV in vitro. These results suggested that the nasal rBCG-V3J1 system might be used as a therapeutic vaccine in addition to a prophylaxis vaccine for the control of AIDS.
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 20 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 11
AN 2002:89940 BIOSIS
DN PREV200200089940
TI Cross-clade neutralizing antibody production against human immunodeficiency virus type 1 clade E and B' strains by recombinant Mycobacterium bovis BCG-based candidate vaccine.
AU Chujoh, Yoshitomo; Matsuo, Kazuhiro; Yoshizaki, Hitomi; Nakasatomi, Tetsuya; Someya, Kenji; Okamoto, Yukari; Naganawa, Satoshi; Haga, Shinji; Yoshikura, Hiroshi; Yamazaki, Akihiro; Yamazaki, Shudo; Honda, Mitsuo [Reprint author]
CS AIDS Research Center, National Institute of Infectious Diseases, Toyama

1-23-1, Shinjuku-ku, Tokyo, 162-8640, Japan
mhonda@nih.go.jp
SO Vaccine, (12 December, 2001) Vol. 20, No. 5-6, pp. 797-804. print.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 24 Jan 2002
Last Updated on STN: 25 Feb 2002
AB The recombinant Mycobacterium bovis BCG (rBCG) vector-based vaccine secreting the V3 principal neutralizing epitope of human immunodeficiency virus type 1 (HIV-1) Japanese strain was reported to induce both humoral and cellular immune responses effectively (Proc. Natl. Acad. Sci. USA. 92 (1995) 10693). The antigen-secreting rBCG system was applied to the V3 epitope of clade E HIV-1 in this study. The V3 sequence of 19 amino acids (aa) and 15aa fused with mycobacterial alpha-antigen was not secreted while 12aa and 11aa sequences were successfully secreted from BCG cells. Serum IgG from guinea pig which was immunized with 12aa epitope-secreting recombinant BCG neutralized the WHO reference strain as well as primary field isolates of clade E virus. The serum IgG could also neutralize Thai B (clade B') strains which possessed a conserved GPGQ motif in their V3 sequences. These data suggest that the rBCG construct secreting the 12aa epitope is implicated in the development of a prophylactic vaccine in Thailand in which both clade E and B' viruses are prevalent.

L2 ANSWER 21 OF 30 USPATFULL on STN
AN 1999:36712 USPATFULL
TI Anti-AIDS secretory recombinant BCG vaccine
IN Matsuo, Kazuhiro, Kawasaki, Japan
Chujo, Yoshitomo, Kawasaki, Japan
Yamazaki, Akihiro, Kawasaki, Japan
Honda, Mitsuo, Mitaka, Japan
Yamazaki, Shudo, Higashiyamato, Japan
Tasaka, Hiromichi, Kure, Japan
PA Ajinomoto Co., Inc., Tokyo, Japan (non-U.S. corporation)
Japan as represented by Director General of Agency of National Institute of Health, Tokyo, Japan (non-U.S. government)
PI US 5885580 19990323
AI US 1997-972089 19971117 (8)
RLI Division of Ser. No. US 1996-619512, filed on 29 Mar 1996, now abandoned
PRAI JP 1994-178462 19940729
DT Utility
FS Granted
EXNAM Primary Examiner: Stucker, Jeffrey; Assistant Examiner: Park, Hankyel T.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A vaccine containing Mycobacterium bovis BCG which secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of a secretory protein, a carrier, having a signal peptide. BCG constituting the present invention secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of an α-antigen derived from mycobacteria. Said fusion protein has significantly increased antigenicity and immunogenicity. Therefore, when it is inoculated into animals, it is efficiently recognized by B cells which recognize said antigen, thereby effectively inducing the production of an antibody to said antigen. When said BCG itself is inoculated into animals, it continuously secretes said fusion protein in the bodies of the animals while continuously propagating therein. Therefore, said BCG is an extremely useful vaccine.

L2 ANSWER 22 OF 30 USPATFULL on STN
AN 1999:4042 USPATFULL
TI Anti-acids secretory recombinant BCG vaccine
IN Matsuo, Kazuhiro, Kawasaki, Japan
Chujo, Yoshitomo, Kawasaki, Japan
Yamazaki, Akihiro, Kawasaki, Japan
Honda, Mitsuo, Mitaka, Japan
Yamazaki, Shudo, Higashiyamato, Japan
Tasaka, Hiromichi, Kure, Japan
PA Ajinomoto Co., Inc., Tokyo, Japan (non-U.S. corporation)
Japan as represented by Director General of Agency of National Institute of Health, Tokyo, Japan (non-U.S. corporation)
PI US 5858369 19990112
AI US 1997-975699 19971121 (8)
RLI Continuation of Ser. No. US 1996-619512, filed on 29 Mar 1996, now abandoned
PRAI JP 1994-178462 19940729
DT Utility
FS Granted
EXNAM Primary Examiner: Stucker, Jeffrey; Assistant Examiner: Park, Hankyel T.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1514
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A vaccine containing Mycobacterium bovis BCG which secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of a secretory protein, a carrier, having a signal peptide. BCG constituting the present invention secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of an α-antigen derived from mycobacteria. Said fusion protein has significantly increased antigenicity and immunogenicity. Therefore, when it is inoculated into animals, it is efficiently recognized by B cells which recognize said antigen, thereby effectively inducing the production of an antibody to said antigen. When said BCG itself is inoculated into animals, it continuously secretes said fusion protein in the bodies of the animals while continuously propagating therein. Therefore, said BCG is an extremely useful vaccine.

L2 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:310334 CAPLUS
DN 126:304686
TI Analysis of the principal neutralization site of HIV-1 and vaccine research
AU Okamoto, Yukari; Honda, Mitsuo
CS AIDS Res. Cent., Natl. Inst. Health, Tokyo, 162, Japan
SO Tanpakushitsu Kakusan Koso (1997), 42(7), 1201-1208
CODEN: TAKKAJ; ISSN: 0039-9450
PB Kyoritsu
DT Journal; General Review
LA Japanese
AB A review, with 20 refs., on variety of the neutralization sites of HIV-1 and their structure, modeling for 3-dimensional structure of HIV-1 PND (principal neutralization determinant/domain), structure of HIV-1 vaccine rBCG-V3J1 prepared by using the Japanese consensus sequence of HIV-1 inserted into the gene of BCG secretory α antigen, and neutralizing activity of serum IgG from guinea pigs immunized with the vaccine. Anal. of prospective HIV-1 antigens useful for vaccine development and drug design of anti-HIV-1 agents are also discussed.

L2 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:130690 CAPLUS
DN 126:223933
TI Vaccine therapy for AIDS
AU Someya, Kenji; Honda, Mitsuo
CS AIDS Research Center, National Institute of Health, Japan
SO Rinsho Kagaku (Osaka) (1997), 33(1), 49-56
CODEN: RIKAER; ISSN: 0385-0323
PB Esuato K. K.
DT Journal; General Review
LA Japanese
AB A review with 10 refs., on difficulties in developing vaccine for AIDS, vaccine that induces artificial immunity and its enhancement, anti-HIV vaccine antigen gp160, gp120, and gp41, second generation vaccine, preparation and evaluation of recombinant BCG vaccine, administration, and 3rd phase clin. test.

L2 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:340573 CAPLUS
DN 125:8464
TI Anti-AIDS secretory recombinant BCG vaccine containing α-antigen of acid-fast bacterium to enhance antigenicity
IN Matsuo, Kazuhiro; Chujo, Yoshitomo; Yamazaki, Akihiro; Honda, Mitsuo; Yamazaki, Shudo; Tasaka, Hiromichi
PA Ajinomoto Co., Inc., Japan; Japan, Agency of National Institute of Health
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9604009	A1	19960215	WO 1995-JP1515	19950731
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CN 1136280	A	19961120	CN 1995-190959	19950731
	EP 745386	A1	19961204	EP 1995-926523	19950731
	EP 745386	B1	20040204		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 258986	T	20040215	AT 1995-926523	19950731
	US 5885580	A	19990323	US 1997-972089	19971117
	US 5858369	A	19990112	US 1997-975699	19971121
PRAI	JP 1994-178462	A	19940729		
	WO 1995-JP1515	W	19950731		
	US 1996-619512	B3	19960329		

AB A vaccine containing Mycobacterium bovis BCG which secretes a fused protein obtained by inserting a foreign antigen peptide to the surface of a mol. of a secreted protein having a signal peptide as a carrier. The BCG secretes a fused protein obtained by inserting a foreign antigen peptide to the surface of a mol. of an α-antigen originating in an acid-fast bacterium. The fused protein has extremely enhanced antigenicity and can efficiently induce the production of an antibody against the α-antigen in animals. When the BCG can serve as a live vaccine; it continues to grow and secrete the fused protein in the animal body. Preparation of recombinant secretion vectors encoding fusion protein containing α-antigen and the epitope of V3 surface antigen of HIV-1 was shown and their antigenicity were demonstrated in vivo. The antibodies thus produced also cross-react to V3 epitopes of types Thai-A and Thai-B.

L2 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:574191 CAPLUS
DN 125:272948
TI Protective immune responses induced by recombinant Mycobacterium bovis bacillus Calmette-Guerin vector-based vaccine for HIV-1

AU Okamoto, Yukari; Ando, Shuji; Honda, Mitsuo
CS AIDS Res. Cent., Natl. Inst. Health, Tokyo, 162, Japan
SO Molecular Medicine (Tokyo) (1996), 33(Suppl. 447), 206-213
CODEN: MOLMEL; ISSN: 0918-6557
PB Nakayama Shoten
DT Journal; General Review
LA Japanese
AB A review, with 13 refs., on the construction of human immunodeficiency virus (HIV) vaccine gene using HIV V3 PND region (V3J1) and recombinant BCG (Mycobacterium bacillus Calmette-Guerin), induction of HIV-PND specific delayed-type hypersensitivity (DTH) in guinea pig, and neutralizing activity of IgG produced by the vaccination. Difference of the neutralizing activity between activated peripheral blood monocytic cells (PBMC) and resting PBMC is pointed out as a problems for evaluation of the neutralizing activity. The maintenance of Th1 function in acquired immunodeficiency syndrome (AIDS) is important, and the vaccine would contribute to it. The results of the vaccine are discussed using severe combined immunodeficiency (SCID) mouse and cynomolgus monkey.

L2 ANSWER 27 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 12
AN 1996:21760 BIOSIS
DN PREV199698593895
TI Protective immune responses induced by secretion of a chimeric soluble protein from a recombinant Mycobacterium bovis bacillus Calmette-Guerin vector candidate vaccine for human immunodeficiency virus type 1 in small animals.
AU Honda, Mitsuo [Reprint author]; Matsuo, Kazuhiro; Nakasone, Tadashi; Okamoto, Yukari; Yoshizaki, Hitomi; Kitamura, Katsuhiko; Sugiura, Wataru; Watanabe, Kuhomi; Fukushima, Yoshiko; Haga, Shinji; Katsura, Yoshimoto; Tasaka, Hiromichi; Komuro, Katsutoshi; Yamada, Takeshi; Asan, Toshihiko; Yamazaki, Akihiro; Yamazaki, Shudo
SO Proceedings of the National Academy of Sciences of the United States of America, (1995) Vol. 92, No. 23, pp. 10693-10697.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article
LA English
ED Entered STN: 12 Jan 1996
Last Updated on STN: 12 Jan 1996
AB A recombinant Mycobacterium bovis bacillus Calmette-Guerin (BCG) vector-based vaccine that secretes the V3 principal neutralizing epitope of human immunodeficiency virus (HIV) could induce immune response to the epitope and prevent the viral infection. By using the Japanese consensus sequence of HIV-1, we successfully constructed chimeric protein secretion vectors by selecting an appropriate insertion site of a carrier protein and established the principal neutralizing determinant (PND)-peptide secretion system in BCG. The recombinant BCG (rBCG)-inoculated guinea pigs were initially screened by delayed-type hypersensitivity (DTH) skin reactions to the PND peptide, followed by passive transfer of the DTH by the systemic route. Further, immunization of mice with the rBCG resulted in induction of cytotoxic T lymphocytes. The guinea pig immune antisera showed elevated titers to the PND peptide and neutralized HIV-MN, and administration of serum IgG from the vaccinated guinea pigs was effective in completely blocking the HIV infection in thymus/liver transplanted severe combined immunodeficiency (SCID)/hu or SCID/PBL mice. In addition, the immune serum IgG was shown to neutralize primary field isolates of HIV that match the neutralizing sequence motif by a peripheral blood mononuclear cell-based virus neutralization assay. The data support the idea that the antigen-secreting rBCG system can be used as a tool for development of HIV vaccines.

L2 ANSWER 28 OF 30 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

AN 1994:466100 BIOSIS
DN PREV199497479100
TI HIV-PND-inserted secretory protein system of recombinant BCG vector can effectively induce immune response to Japanese consensus HIV.
AU Honda, Mitsuo [Reprint author]; Matsuo, K.; Kitamura, K.; Nakasone, T.; Okamoto, Y.; Watanabe, K.; Yoshizaki, H.; Fukushima, Y.; Sugiura, W.; Tasaka, H.; Yamazaki, A.; Moritsugu, Y.; Yamada, K.; Yamazaki, S.
CS AIDS Res. Cent., Tokyo, Japan
SO TENTH INTERNATIONAL CONFERENCE ON AIDS, INTERNATIONAL CONFERENCE ON STD. (1994) pp. 1) 74. Tenth International Conference on AIDS and the International Conference on STD, Vol. 1; The global challenge of AIDS: Together for the future.
Publisher: Tenth International Conference on AIDS, Yokohama, Japan.
Meeting Info.: Meeting. Yokohama, Japan. August 7-12, 1994.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 31 Oct 1994
Last Updated on STN: 31 Oct 1994

L2 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:5257 CAPLUS
DN 118:5257
TI Purification of MPB70 and production of specific monoclonal antibodies
AU Haga, Shinji; Nakagawa, Masaro; Nagai, Sadamu; Miura, Kaoru; Honda, Mitsuo
CS Dep. Cell. Immunol., Natl. Inst. Health, Tokyo, 141, Japan
SO Hybridoma (1992), 11(4), 483-92
CODEN: HYBRDY; ISSN: 0272-457X
DT Journal
LA English
AB MPB70 is a protein secreted into the culture filtrate of Mycobacterium bovis BCG (substrain Tokyo 172), which is able to induce a delayed-type hypersensitivity (DTH) skin reaction in guinea pigs immunized with BCG-Tokyo. By high-pressure chromatofocusing and size-exclusion HPLC, a further purified MPB70 protein was obtained, which was visualized as a single band with a mol. mass of 22 kDa by SDS-PAGE. A series of hybridoma cell lines that produced monoclonal antibodies (MAbs) against the purified MPB70 protein was prepared, and 3 MAbs, Bov-1-3, with strong antigen-binding capacities were established. Bov-1 was the most potent MAb among them and binds to only a 22 kDa protein band in culture filtrates of M. bovis, but not to bands in those of M. tuberculosis by Western immunoblotting anal., suggesting that Bov-1 recognize a different epitope of MPB70 from MAbs that have been shown previously to recognize several species of mols. in culture filtrates of M. bovis. The purified MPB70 protein elicited a strong DTH skin reaction in guinea pigs sensitized with BCG-Tokyo vaccine. Bov-1 had no inhibitory effect on generation of the DTH skin reaction, showing that MAb bound to an epitope distinct from that inducing the skin reaction. All of the MAbs were specific to MPB70 and each recognized a different epitope on MPB70. MPB70 was not detected in the culture filtrate of M. tuberculosis H37Rv.

L2 ANSWER 30 OF 30 JAPIO (C) 2007 JPO on STN
AN 2006-149234 JAPIO
TI PRIME-BOOST VACCINATION METHOD
IN HONDA MITSUO; MATSUO KAZUHIRO; HAMANO RYUICHI; IZUMI YASUYUKI; PROMKHATKAEW DUANTHANORM; BALACHANDRA KRUAVON; SUTTHENT RUENGPUNG
PA JAPAN SCIENCE & TECHNOLOGY AGENCY
THAILAND MINISTRY OF PUBLIC HEALTH DEPARTMENT OF MEDICAL SCIENCES
NATIONAL INSTITUTE OF INFECTIOUS DISEASES
PI JP 2006149234 A 20060615 Heisei
AI JP 2004-341283 (JP2004341283 Heisei) 20041125
PRAI JP 2004-341283 20041125

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SO   PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2006
AB   PROBLEM TO BE SOLVED: To provide a new vaccination strategy to HIV-1
     CEF01AE.
     SOLUTION: The prime-boost vaccination method comprises a priming step with
     a recombinant BCG vaccine and one or more boosting steps with
     the recombinant vaccine. Both of the recombinant BCG vaccine for
     priming step and the recombinant vaccine for boosting step contain at
     least one gene of HIV-1 CRF01AE strain.
     COPYRIGHT: (C)2006,JPO&NCIPI


=> e matsuo kazuhiro/au
E1          39     MATSUO KAZUHIDE/AU
E2         120     MATSUO KAZUHIKO/AU
E3         403 --> MATSUO KAZUHIRO/AU
E4           8     MATSUO KAZUHISA/AU
E5          10     MATSUO KAZUHITO/AU
E6          14     MATSUO KAZUKI/AU
E7          11     MATSUO KAZUKO/AU
E8          18     MATSUO KAZUMA/AU
E9          89     MATSUO KAZUMASA/AU
E10         14     MATSUO KAZUMI/AU
E11          8     MATSUO KAZUMINE/AU
E12          1     MATSUO KAZUMORI/AU

=> s e3 and bcg
L3          70 "MATSUO KAZUHIRO"/AU AND BCG

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4           47 DUP REM L3 (23 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 47 ANSWERS - CONTINUE? Y/(N):y

L4   ANSWER 1 OF 47  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2006:512935  CAPLUS
DN   145:6612
TI   A method of prime-boost vaccination for AIDS caused by HIV-1 CRFO1_AE
     strain
IN   Honda, Mitsuo; Matsuo, Kazuhiro; Hamano, Takaichi; Izumi,
     Yasuyuki; Promkhatkaew, Duanthanorm; Balachandra, Kruavon; Sutthent,
     Ruengpung
PA   Japan Science and Technology Agency, Japan; Japan as Represented by
     Director General of National Institute of Infectious Diseases; Departement
     of Medical Sciences, Ministry of Public Health, Thailamd
SO   PCT Int. Appl., 39 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   WO 2006057454        A1    20060601    WO 2005-JP22221        20051125
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
             NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
             SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
             YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
```

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2006149234 A 20060615 JP 2004-341283 20041125

PRAI JP 2004-341283 A 20041125

AB An invention of this application is a method of prime-boost vaccination comprising a priming step by a recombinant BCG vaccine and one or more boosting steps by a recombinant vaccine, wherein both of the recombinant BCG vaccine for priming step and the recombinant vaccine for boosting steps have at least one gene of HIV-1 CRFO1_AE strain. In said invention, it is a preferred embodiment that both of the recombinant vaccines have at least gag gene of HIV-1 CRFO1-AE strain. The present inventors have found that in the case of using recombinant BCG as a priming antigen in combination with other viral vector-based vaccine as a boosting antigen, quite efficiently enhanced cellular immune response could be induced against HIV-1 CRFO 1_AE whereupon the present invention has been achieved.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 47 USPATFULL on STN

AN 2006:247197 USPATFULL

TI Recombination bcg vaccine

IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Kanekiyo, Masaru, Tokyo, JAPAN

PI US 2006210586 A1 20060921

AI US 2003-524586 A1 20030813 (10)
WO 2003-JP10303 20030813
20050331 PCT 371 date

PRAI JP 2002-237610 20020816

DT Utility

FS APPLICATION

LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN 5 Drawing Page(s)

LN.CNT 640

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A recombinant BCG vaccine being transformed with an expression vector that has a polynucleotide encoding a foreign antigenic protein, wherein the polynucleotide is a modified one in which a third position of each codon is substituted with G or C without a change of an amino acid. This recombinant BCG vaccine has an excellent expression rate of antigenic protein and, as a result, capable of inducing a sufficient immune response against target infectious disease, cancer, or the like at the same dose as that of the typical BCG vaccine.

L4 ANSWER 3 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1086167 CAPLUS

DN 145:453348

TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity. [Erratum to document cited in CA143:365230]

AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo

CS Division of Experimental Animal Research, AIDS Research Center, Division of Biosafety Control and Research, National Institute of Infectious Diseases, Toyama 1-23-1, Shinjuku-ku, Tokyo, 162-8640, Japan

SO Journal of Virology (2006), 80(20), 10288
CODEN: JOVIAM; ISSN: 0022-538X

PB American Society for Microbiology
DT Journal
LA English
AB On page 12873, Table 1, in groups 1, 2 and 3, rBCG was primed at week 3, followed by booster immunization of rDIs at weeks 50 and 54. In the same table, groups 4 and 5, rDIs was primed at weeks 0 and 12, followed by booster immunization of rBCG at week 50. Then all animals were challenged with virulent SHIV KS661c at week 57. On page 12874, Figure 2: The weeks after immunization shown on the x axis in panel A should read: "3, 7, 11, 19, 27, 35, 50, 53, 54, and 56.". The weeks after immunization shown on the x axis in panel B should read: "0, 4, 8, 16, 24, 32, 50, 52, 53, 54, and 56.". Although the patterns and magnitudes of the kinetics were almost the same as the original ones, the standard deviation of the ELISPOT data at the peak response at 54 wk after immunization was 500, which was five times more than originally reported. Spot-forming cells were counted by using a KS ELISPOT system after 35 wk of immunization. Before that, we counted SFCs using an inverted microscope. On page 12878, Acknowledgments, paragraph 1, the last sentence of the paragraph should be deleted. These changes do not alter the conclusions of the article.

L4 ANSWER 4 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1171430 CAPLUS
DN 146:160902
TI Strategy for development of prophylactic and therapeutic vaccines against HIV
AU Matsuo, Kazuhiro; Yamamoto, Naoki; Honda, Mitsuo
CS AIDS Research Center, National Institute of Infectious Diseases, Tokyo, Japan
SO Igaku no Ayumi (2006), 218(10), 923-930
CODEN: IGAYAY; ISSN: 0039-2359
PB Ishiyaku Shuppan
DT Journal; General Review
LA Japanese
AB A review discusses development of prophylactic and therapeutic vaccines such as DNA vaccine, BCG vaccine application and antigen peptides vaccine for HIV infection.

L4 ANSWER 5 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:315079 BIOSIS
DN PREV200600309141
TI Intradermal and oral immunization with recombinant Mycobacterium bovis BCG expressing the simian immunodeficiency virus Gag protein induces long-lasting, antigen-specific immune responses in guinea pigs.
AU Kawahara, Mamoru [Reprint Author]; Matsuo, Kazuhiro; Honda, Mitsuo
CS Univ Occupat and Environm Hlth, Dept Biochem and Mol Pathophysiol, Sch Med, Yahatanishi Ku, 1-1 Iseigaoka, Kitakyushu, Fukuoka 8078555, Japan
mamokawa@med.uoeh-u.ac.jp
SO Clinical Immunology (Orlando), (APR 2006) Vol. 119, No. 1, pp. 67-78.
ISSN: 1521-6616.
DT Article
LA English
ED Entered STN: 14 Jun 2006
Last Updated on STN: 14 Jun 2006
AB To develop a new recombinant BCG (rBCG) vaccine, we constructed rBCG that expresses the full-length Gag protein of simian immunodeficiency virus (rBCG-SIVGag) at a level of 0.5 ng/mg after 3 weeks of bacterial cell culture. Intradermal (i.d.) inoculation of guinea pigs with 0.1 mg of rBCG-SIVGag resulted in the induction of delayed-type hypersensitivity (DTH) responses to both purified protein derivative (PPD) of tuberculin and SIV Gag p27 protein; responses that were maintained for the duration of the 50-week study. In contrast, guinea pigs orally vaccinated with 160 mg of the same antigen exhibited a long-lasting DTH response to the SIV

Gag p27 protein, but mounted no response to PPD. Proliferative responses to SIV Gag p27 and PPD antigens were detected in both i.d. and orally immunized animals; however, the levels of PPD-specific responses were significantly higher in guinea pigs immunized by the i.d. than the oral route. A significant increase in the level of PPD- and SIV Gag p27-specific IFN gamma mRNA expression was also detected in both immunization groups receiving rBCG-SIVGag. In addition, both i.d. and oral immunization with rBCG-SIVGag induced PPD- and SIV Gag p27-specific serum IgG responses. Insertion of the SIV gag gene into BCG did not appear to change the ability of rBCG-immunized animals to elicit PPD-specific immune responses. These results indicate that rBCG-SIVGag has the ability to effectively induce long-lasting, cell-mediated and humoral immunity against both viral and bacterial. antigens in guinea pigs, suggesting that rBCG-Gag has the potential to elicit immunities specific not only for tuberculosis but also for HIV at human doses. (c) 2005 Elsevier Inc. All rights reserved.

L4 ANSWER 6 OF 47 USPATFULL on STN
AN 2005:143826 USPATFULL
TI Radio lan access authentication system
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Izumi, Yasuyuki, Tokyo, JAPAN
PI US 2005123561 A1 20050609
AI US 2003-515253 A1 20021120 (10)
WO 2002-JP12125 20021120
PRAI JP 2002-145132 20020520
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 356
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides a recombinant BCG vaccine transformed by an expression vector having polynucleotide coding for exogenous antigenic protein, characterized in that, the BCG vaccine is used for initial antigen stimulus in immune induction by plural antigen stimulations and also provides a method for the immune induction where the initial antigen stimulus is carried out by the said BCG vaccine and one or more additional antigenic stimulation(s) is/are carried out by non-BCG vaccine expressing the same antigenic protein.

L4 ANSWER 7 OF 47 USPATFULL on STN
AN 2005:62585 USPATFULL
TI Recombinant vaccinia virus vaccine
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Ohsu, Takeaki, Kanagawa, JAPAN
Miyamura, Tatsuo, Tokyo, JAPAN
Matsuura, Yoshiharu, Osaka, JAPAN
Ishii, Koji, Tokyo, JAPAN
Kato, Kenzo, Chiba, JAPAN
PI US 2005053620 A1 20050310
AI US 2004-495974 A1 20040903 (10)
WO 2001-JP10141 20011120
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021
CLMN Number of Claims: 19

ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 849
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a recombinant vaccinia virus strain DIs that possesses a polynucleotide encoding a foreign antigenic protein in the non-essential gene region of the chromosome DNA and expresses the antigenic protein; and provides a highly-safe, vaccinia virus vaccine containing the recombinant virus strain DIs as the active ingredient. The invention also provides a method of using the vaccinia virus strain DIs as a vector for protein expression.

L4 ANSWER 8 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 2
AN 2006:8301 BIOSIS
DN PREV200600008996
TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity.
AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, Ctr AIDS Res, Shinjuku Ku, Toyama 1-23-1, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (OCT 2005) Vol. 79, No. 20, pp. 12871-12879. CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 14 Dec 2005
Last Updated on STN: 14 Dec 2005
AB Virus-specific T-cell responses can limit immunodeficiency virus type 1 (HIV-1) transmission and prevent disease progression and so could serve as the basis for an affordable, safe, and effective vaccine in humans. To assess their potential for a vaccine, we used Mycobacterium bovis bacillus Calmette-Guerin (BCG)-Tokyo and a replication-deficient vaccinia virus strain (DIs) as vectors to express full-length gag from simian immunodeficiency viruses (SIVs) (rBCG-SIVgag and rDIsSIVgag). Cynomolgus macaques were vaccinated with either rBCG-SIVgag dermally as a single modality or in combination with rDIsSIVgag intravenously. When cynomologus macaques were primed with rBCG-SIVgag and then boosted with rDIsSIVgag, high levels of gamma interferon (IFN-gamma) spot-forming cells specific for SIV Gag were induced. This combination regimen elicited effective protective immunity against mucosal challenge with pathogenic simian-human immunodeficiency virus for the 1 year the macaques were under observation. Antigen-specific intracellular IFN-gamma activity was similarly induced in each of the macaques with the priming-boosting regimen. Other groups receiving the opposite combination or the single-modality vaccines were not effectively protected. These results suggest that a recombinant M. bovis BCG-based vector may have potential as an HIV/AIDS vaccine when administered in combination with a replication-deficient vaccinia virus DIs vector in a priming-boosting strategy.

L4 ANSWER 9 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 3
AN 2005:399376 BIOSIS
DN PREV200510190449
TI Mycobacterial codon optimization enhances antigen expression and virus-specific immune responses in recombinant Mycobactetium bovis bacille Calmette-Guerin expressing human immunodeficiency virus type 1 Gag.
AU Kanekiyo, Masaru; Matsuo, Kazuhiro; Hamatake, Makiko; Hamano, Takaichi; Ohsu, Takeaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki,

Shudo; Hasegawa, Atsuhiko; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, AIDS Res Ctr, Shinjuku Ku, 1-23-1 Toyama, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 8716-8723.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005
AB Although its potential for vaccine development is already known, the introduction of recombinant human immunodeficiency virus (HIV) genes to Mycobacterium bovis bacille Calmette-Guerin (BCG) has thus far elicited only limited responses. In order to improve the expression levels, we optimized the codon usage of the HIV type 1 (HIV-1) p24 antigen gene of gag (p24 gag) and established a codon-optimized recombinant BCG (rBCG)-p24 Gag which expressed a 40-fold-higher level of p24 Gag than did that of nonoptimized rBCG-p24 Gag. Inoculation of mice with the codon-optimized rBCG-p24 Gag elicited effective immunity, as evidenced by virus-specific lymphocyte proliferation, gamma interferon ELISPOT cell induction, and antibody production. In contrast, inoculation of animals with the nonoptimized rBCG-p24 Gag induced only low levels of immune responses. Furthermore, a dose as small as 0.01 mg of the codon-optimized rBCG per animal proved capable of eliciting immune responses, suggesting that even low doses of a codon-optimized rBCG-based vaccine could effectively elicit HIV-1-specific immune responses.

L4 ANSWER 10 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4
AN 2005:700913 CAPLUS
DN 143:210149
TI Ag85B of Mycobacteria Elicits Effective CTL Responses through Activation of Robust Th1 Immunity as a Novel Adjuvant in DNA Vaccine
AU Takamura, Shiki; Matsuo, Kazuhiro; Takebe, Yutaka; Yasutomi, Yasuhiro
CS Japanese Foundation for AIDS Prevention, Tokyo, Japan
SO Journal of Immunology (2005), 175(4), 2541-2547
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
AB CD4+ T cells play a crucial role in CTL generation in a DNA vaccination strategy. Several studies have demonstrated the requirement of CD4+ T cells for the induction of a sufficient immune response by coadministrating DNAs. In the present study the authors investigated the effectiveness of Ag85B of mycobacteria, which is known to be one of the immunogenic proteins for Th1 development, as an adjuvant of a DNA vaccine. HIV gp120 DNA vaccine mixed with Ag85B DNA as an adjuvant induced HIV gp120-specific Th1 responses, as shown by delayed-type hypersensitivity, cytokine secretion, and increasing HIV-specific CTL responses. Moreover, these responses were enhanced in mice primed with Mycobacterium bovis bacillus Calmette-Guerin before immunization of HIV DNA vaccine mixed with Ag85B DNA. Furthermore, these immunized mice showed substantial reduction of HIV gp120-expressing recombinant vaccinia virus titers compared with the titers in other exptl. mice after recombinant vaccinia virus challenge. Because most humans have been sensitized by spontaneous infection or by vaccination with mycobacteria, these findings indicate that Ag85B is a promising adjuvant for enhancing CTL responses in a DNA vaccination strategy.
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 5
AN 2005:114055 CAPLUS
DN 142:334776

TI Vaccination of rhesus macaques with recombinant Mycobacterium bovis bacillus Calmette-Guerin Env V3 elicits neutralizing antibody-mediated protection against simian-human immunodeficiency virus with a homologous but not a heterologous V3 motif
AU Someya, Kenji; Cecilia, Dayaraj; Ami, Yasushi; Nakasone, Tadashi; Matsuo, Kazuhiro; Burda, Sherri; Yamamoto, Hiroshi; Yoshino, Naoto; Kaizu, Masahiko; Ando, Shuji; Okuda, Kenji; Zolla-Pazner, Susan; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo
CS AIDS Research Center, National Institute of Infectious Diseases, Tokyo, 162-8640, Japan
SO Journal of Virology (2005), 79(3), 1452-1462
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB Although the correlates of vaccine-induced protection against human immunodeficiency virus type 1 (HIV-1) are not fully known, it is presumed that neutralizing antibodies (NAb) play a role in controlling virus infection. In this study, we examined immune responses elicited in rhesus macaques following vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin expressing an HIV-1 Env V3 antigen (rBCG Env V3). We also determined the effect of vaccination on protection against challenge with either a simian-human immunodeficiency virus (SHIV-MN) or a highly pathogenic SHIV strain (SHIV-89.6PD). Immunization with rBCG Env V3 elicited significant levels of NAb for the 24 wk tested that were predominantly HIV-1 type specific. Sera from the immunized macaques neutralized primary HIV-1 isolates in vitro, including HIV-1BZ167/X4, HIV-1SF2/X4, HIV-1C12/X4, and, to a lesser extent, HIV-1MNp/X4, all of which contain a V3 sequence homologous to that of rBCG Env V3. In contrast, neutralization was not observed against HIV-1SF33/X4, which has a heterologous V3 sequence, nor was it found against primary HIV-1 R5 isolates from either clade A or B. Furthermore, the viral load in the vaccinated macaques was significantly reduced following low-dose challenge with SHIV-MN, and early plasma viremia was markedly decreased after high-dose SHIV-MN challenge. In contrast, replication of pathogenic SHIV-89.6PD was not affected by vaccination in any of the macaques. Thus, we have shown that immunization with an rBCG Env V3 vaccine elicits a strong, type-specific V3 NAb response in rhesus macaques. While this response was not sufficient to provide protection against a pathogenic SHIV challenge, it was able to significantly reduce the viral load in macaques following challenge with a nonpathogenic SHIV. These observations suggest that rBCG vectors have the potential to deliver an appropriate virus immunogen for desirable immune elicitations.
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1019515 CAPLUS
DN 144:86200
TI BCG as a vaccine vector
AU Matsuo, Kazuhiro
CS First Research Group, AIDS Research Center, National Institute of Infectious Diseases, Tokyo, 162-8640, Japan
SO Rinsho Men'eki (2005), 43(6), 659-664
CODEN: RNMKAU; ISSN: 0386-9695
PB Kagaku Hyoronsha
DT Journal; General Review
LA Japanese
AB A review discusses application of BCG as vectors for vaccines such as AIDS vaccines.

L4 ANSWER 13 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 6
AN 2005:338939 BIOSIS

DN PREV200510120020
TI Specific immune response and pathological findings in BALB/c mice inoculated with recombinant BCG expressing HIV-1 antigen.
AU Wiriyarat, Witthawat; Sukpanichnant, Sanya; Sittisombut, Nopporn; Balachandra, Kruavon; Promkhatkaew, Duanthanorm; Butraporn, Raywadee; Sutthent, Ruengpung; Boonlong, Jotika; Matsuo, Kazuhiro; Honda, Mitsuo; Warachit, Paijit; Puthavathana, Pilaipan [Reprint Author]
CS Mahidol Univ, Siriraj Hosp, Fac Med, Dept Microbiol, Bangkok 10700, Thailand
siput@mahidol.ac.th
SO Asian Pacific Journal of Allergy and Immunology, (MAR 2005) Vol. 23, No. 1, pp. 41-51.
ISSN: 0125-877X.
DT Article
LA English
ED Entered STN: 31 Aug 2005
Last Updated on STN: 31 Aug 2005
AB Recombinant BCGs (rBCGs) containing extrachromosomal plasmids with different HIV-1 insert sequences: nef, env (V3J1 and E9Q), gag p17 or whole gag p55 were evaluated for their immunogenicity, safety and persistent infection in BALB/c mice. Animal injected with, rBCG-pIJKV3J1, rBCG-pSO gag p17 or rBCG-pSO gag p55 could elicit lymphocyte proliferation as tested by specific HIV-1 peptides or protein antigen. Inoculation with various concentration of rBCG-pSO gag p55 generated satisfactory specific lymphocyte proliferation in dose escalation trials. The rBCG-pSO gag p55 recovered from spleen tissues at different time interval post-inoculation could express the HIV protein as determined by ELISA p24 antigen detection kit. This result indicated that the extrachromosomal plasmid was stable and capable to express Gag protein. It was also demonstrated that rBCGs did not cause serious pathological change in the inoculated animals. The present study suggested the role of BCG as a potential vehicle for using in HIV vaccine development.

L4 ANSWER 14 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:162604 CAPLUS
DN 140:216160
TI Recombinant BCG vaccines against infection, cancer and other diseases
IN Honda, Mitsuo; Matsuo, Kazuhiro; Kanekiyo, Masaru
PA Japan Science and Technology Corporation, Japan; Japan as Represented by Director General of National Institute of Infectious Diseases
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004016280	A1	20040226	WO 2003-JP10303	20030813
	W: IN, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	EP 1535627	A1	20050601	EP 2003-788098	20030813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	US 2006210586	A1	20060921	US 2005-524586	20050331
PRAI	JP 2002-237610	A	20020816		
	WO 2003-JP10303	W	20030813		

AB A recombinant BCG vaccine obtained by transformation with an expression vector carrying a polynucleotide coding for an ecdemic antigenic protein, which recombinant BCG vaccine consists of a modified type polynucleotide comprising a polynucleotide having the third base of each of the codons thereof substituted with G or C without changing of the type of amino acid. This recombinant BCG

vaccine excels in the amount of antigenic protein expressed, so that even with the same dosage as employed for conventional BCG vaccines, the recombinant BCG vaccine can induce satisfactory immune response to target infectious diseases, cancer, etc. In example, recombinant BCG comprising hsp60 gene and HIV-1 gag p24 gene was prepared for use as vaccine.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:931202 CAPLUS
DN 139:394884
TI BCG vector and non-BCG vector encoding antigenic protein for use as vaccine and booster vaccine against infection and cancer
IN Honda, Mitsuo; Matsuo, Kazuhiro; Izumi, Yasuyuki
PA Japan Science and Technology Corporation, Japan; Japan as Represented by Director General of National Institute of Infectious Diseases
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003097087	A1	20031127	WO 2002-JP12125	20021120
	W: CA, JP, US				
	CA 2494359	A1	20031127	CA 2002-2494359	20021120
	US 2005123561	A1	20050609	US 2003-515253	20021120
	IN 2003DE00709	A	20050311	IN 2003-DE709	20030520
PRAI	JP 2002-145132	A	20020520		
	WO 2002-JP12125	W	20021120		

AB A recombinant BCG vaccine transformed by an expression vector which carries a polynucleotide encoding a foreign antigenic protein characterized by being usable for priming in immune induction via twice or more antigenic stimulations; and an immune induction method characterized by comprising priming with the use of the above BCG vaccine and boostering once or more with the use of a non-BCG vaccine expressing the same antigenic protein. Recombinant BCG (rBCG-SIVgag) and recombinant vaccinia Dis (rDis-SIVgaga) encoding SIV gag gene were prepared and tested.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 7
AN 2003:346612 BIOSIS
DN PREV200300346612
TI Immunization with recombinant Calmette-Guerin bacillus (BCG)-hepatitis C virus (HCV) elicits HCV-specific cytotoxic T lymphocytes in mice.
AU Uno-Furuta, Satori; Matsuo, Kazuhiro; Tamaki, Shigenori; Takamura, Shiki; Kamei, Akira; Kuromatsu, Isao; Kaito, Masahiko; Matsuura, Yoshiharu; Miyamura, Tatsuo; Adachi, Yukihiko; Yasutomi, Yasuhiro [Reprint Author]
CS Department of Bioregulation, Mie University School of Medicine, 2-174 Edobashi, Tsu, Mie, 514-8507, Japan
yasutomi@doc.medic.mie-u.ac.jp
SO Vaccine, (4 July 2003) Vol. 21, No. 23, pp. 3149-3156. print.
ISSN: 0264-410X (ISSN print).
DT Article
LA English
ED Entered STN: 30 Jul 2003
Last Updated on STN: 30 Jul 2003

AB Since virus-specific cytotoxic T lymphocytes (CTLs) play a critical role in preventing the spread of hepatitis C virus (HCV), an effective HCV vaccine should be capable of eliciting HCV-specific CTLs. In the present study, we assessed the capability of a novel recombinant vaccine using an attenuated tuberculosis bacillus, Calmette-Guerin bacillus (BCG), as a vaccine vehicle to elicit HCV-specific CTLs. BCG was engineered to express the CTL epitope of HCV-non-structure protein 5a (NS5a) as a chimeric protein with alpha antigen of mycobacteria. Immunization with this recombinant BCG elicited major histocompatibility complex class I-restricted CD8+ HCV-NS5a-specific CTLs in mice. Immunized mice showed a substantial reduction in the vaccinia virus titer compared with control mice when the immunized mice were challenged with a recombinant vaccinia virus expressing HCV-NS5a genes. These findings provide evidences for the possibility of BCG as a vaccine vector and its continued exploration as a vehicle for eliciting HCV-specific immunity.

L4 ANSWER 17 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:909231 CAPLUS
DN 140:31200
TI New trend in AIDS vaccine research
AU Matsuo, Kazuhiro
CS AIDS Research Center, National Institute of Infectious Diseases, Japan
SO Kagaku to Seibutsu (2003), 41(11), 731-737
CODEN: KASEAA; ISSN: 0453-073X
PB Gakkai Shuppan Senta
DT Journal; General Review
LA Japanese
AB A review on infection with HIV-1, symptoms of AIDS, shifting from neutralizing antibody-inducing vaccines to cell-mediated immunity-inducing vaccines, vaccines currently being clin. tested, and immune induction by combination of recombinant BCG and recombinant vaccinia virus.

L4 ANSWER 18 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:169547 CAPLUS
DN 136:231223
TI Inducer of Th1-type cytokine production and it's application as vaccine for treating atopic diseases
IN Yasutomi, Yasuhiro; Mizutani, Hitoshi; Matsuo, Kazuhiro
PA Japan BCG Laboratory, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002068990	A	20020308	JP 2000-261016	20000830
PRAI	JP 2000-261016		20000830		

AB Provided is an agent capable of switching cytokine profiles from Th2 to Th1, or inducing Th1 cytokine production The Th1 cytokine inducer is heat-killed/ultrasound-disrupted BCG or components derived from it. The inducer can be used as a vaccine to treat atopic diseases such as atopic dermatitis and asthma.

L4 ANSWER 19 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 8
AN 2003:19497 BIOSIS
DN PREV200300019497
TI Combined intrarectal/intradermal inoculation of recombinant Mycobacterium bovis bacillus Calmette-Guerin (BCG) induces enhanced immune responses against the inserted HIV-1 V3 antigen.
AU Kawahara, Mamoru; Matsuo, Kazuhiro; Nakasone, Tadashi; Hiroi, Takachika; Kiyono, Hiroshi; Matsumoto, Sohkichi; Yamada, Takeshi;

Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS AIDS Research Center, National Institute of Infectious Diseases, 1-23-1 Toyama, Shinjuku-ku, Tokyo, 162-8640, Japan
mhonda@nih.go.jp
SO Vaccine, (13 December 2002) Vol. 21, No. 3-4, pp. 158-166. print.
ISSN: 0264-410X (ISSN print).
DT Article
LA English
ED Entered STN: 1 Jan 2003
Last Updated on STN: 1 Jan 2003
AB The development of a successful recombinant Mycobacterium bovis bacillus Calmette-Guerin (rBCG) vector-based vaccine for human immunodeficiency virus type 1 (HIV-1) requires the induction of high levels of HIV-1-specific immunity while at the same time maintaining immunity to tuberculosis. To examine a combined vaccination strategy for enhancement of immune responses specific for HIV-1, guinea pigs were inoculated with either a single or combination intradermal (i.d.), intrarectal (i.r.) and intranasal (i.n.) administration of rBCG-pSOV3J1 which secretes a chimeric protein of HIV-1 V3J1 peptide and alpha-antigen. Significant level of delayed-type hypersensitivity to both V3J1 peptide and tuberculin was induced in guinea pigs inoculated with human doses of rBCG-pSOV3J1 by a combination of intrarectal and intradermal routes. Guinea pigs inoculated by combined routes also had significantly higher titers of HIV-1-specific serum IgG and IgA compared with those animals immunized only intrarectally, which led to the enhanced neutralization activity against HIV-1MN. In addition, the induction of high levels of IFNgamma and interleukin-2 (IL-2) mRNA in PBMC, splenocytes, and intraepithelial lymphocytes from the immunized animals was detected until at least 110 weeks post-inoculation. These results suggest that enhanced immune responses specific for HIV-1 are efficiently induced by combined intrarectal and intradermal immunization with rBCG-HIV, and antigen-specific Th1-type memory cells are maintained for more than 2 years in the immunized animals. Thus, inoculation with rBCG-HIV by combined routes represents an effective vaccination strategy to elicit high levels of HIV-1-specific immune responses.

L4 ANSWER 20 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
AN 2002:634285 BIOSIS
DN PREV200200634285
TI Protective efficacy of vaccine candidates against guinea pig pulmonary tuberculosis.
AU Yamamoto, Saburo; Yamamoto, Toshiko; Nojima, Yasuhiro; Umemori, Kiyoko; Matsuo, Kazuhiro; Nomaguchi, Hiroko; Sato, Yukio; Yamada, Takeshi; Ohara, Naoya; Matsumoto, Sohkichi; Phalen, Susan; McMurray, David N.
SO Tuberculosis (Edinburgh), (2002) Vol. 82, No. 2-3, pp. 128. print.
Meeting Info.: 36th Annual Research Conference of the US-Japan Cooperative Medical Science Program Tuberculosis and Leprosy Panel. Louisiana, USA. July 15-17, 2001.
ISSN: 1472-9792.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 12 Dec 2002
Last Updated on STN: 12 Dec 2002

L4 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:611508 CAPLUS
DN 138:50341
TI Discovery of immunostimulatory CpG-DNA and its application to tuberculosis vaccine development
AU Yamamoto, Saburo; Yamamoto, Toshiko; Nojima, Yasuhiro; Umemori, Kiyoko; Phalen, Susan; McMurray, David N.; Kuramoto, Etsuro; Iho, Sumiko; Takauji, Rumiko; Sato, Yukio; Yamada, Takeshi; Ohara, Naoya; Matsumoto, Sohkichi;

Goto, Yoshitaka; Matsuo, Kazuhiro; Tokunaga, Tohru
CS National Institute of Infectious Diseases, Musashimurayama, Tokyo, 208-0011, Japan
SO Japanese Journal of Infectious Diseases (2002), 55(2), 37-44
CODEN: JJIDFE; ISSN: 1344-6304
PB National Institute of Infectious Diseases
DT Journal; General Review
LA English
AB A review. DNA containing an unmethylated CpG motif has a potent immunostimulatory effect on the vertebrate immune system. Because such CpG motifs are relatively common in bacterial DNA, but rare in mammalian animal and plant DNA, they may be an evolutionary adaptation augmenting innate immunity, most likely in response to pathogens that replicate within the host cells, such as viruses and intracellular bacteria. Microbial infection induces innate immunity by triggering pattern-recognition systems. The infected cells produce proinflammatory cytokines that directly combat microbial invaders and express costimulating surface mols., which develop adaptive immunity by inducing distinct T cell differentiation. Bacterial DNA with unmethylated CpG-DNA stimulates vertebrate immature immune cells to induce maturation and to produce TNF-α as well as Th1-type cytokines, IL-12 and IFN-γ. Therefore, CpG-DNA functions as an adjuvant for regulating the initiation of Th1 differentiation. The roles of immunostimulatory CpG motifs in DNA vaccine developments and in therapeutic applications have been discussed.
RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 9
AN 2002:89940 BIOSIS
DN PREV200200089940
TI Cross-clade neutralizing antibody production against human immunodeficiency virus type 1 clade E and B' strains by recombinant Mycobacterium bovis BCG-based candidate vaccine.
AU Chujoh, Yoshitomo; Matsuo, Kazuhiro; Yoshizaki, Hitomi; Nakasatomi, Tetsuya; Someya, Kenji; Okamoto, Yukari; Naganawa, Satoshi; Haga, Shinji; Yoshikura, Hiroshi; Yamazaki, Akihiro; Yamazaki, Shudo; Honda, Mitsuo [Reprint author]
CS AIDS Research Center, National Institute of Infectious Diseases, Toyama 1-23-1, Shinjuku-ku, Tokyo, 162-8640, Japan
mhonda@nih.go.jp
SO Vaccine, (12 December, 2001) Vol. 20, No. 5-6, pp. 797-804. print.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 24 Jan 2002
Last Updated on STN: 25 Feb 2002
AB The recombinant Mycobacterium bovis BCG (rBCG) vector-based vaccine secreting the V3 principal neutralizing epitope of human immunodeficiency virus type 1 (HIV-1) Japanese strain was reported to induce both humoral and cellular immune responses effectively (Proc. Natl. Acad. Sci. USA. 92 (1995) 10693). The antigen-secreting rBCG system was applied to the V3 epitope of clade E HIV-1 in this study. The V3 sequence of 19 amino acids (aa) and 15aa fused with mycobacterial alpha-antigen was not secreted while 12aa and 11aa sequences were successfully secreted from BCG cells. Serum IgG from guinea pig which was immunized with 12aa epitope-secreting recombinant BCG neutralized the WHO reference strain as well as primary field isolates of clade E virus. The serum IgG could also neutralize Thai B (clade B') strains which possessed a conserved GPGQ motif in their V3 sequences. These data suggest that the rBCG construct secreting the 12aa epitope is implicated in the development of a prophylactic vaccine in Thailand in which both clade E and B' viruses are prevalent.

L4 ANSWER 23 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 10
AN 2002:479818 BIOSIS
DN PREV200200479818
TI Induction of effective antitumor immune responses in a mouse bladder tumor model by using DNA of an alpha antigen from mycobacteria.
AU Kuromatsu, Isao; Matsuo, Kazuhiro; Takamura, Shiki; Kim, Gisen; Takebe, Yutaka; Kawamura, Juichi; Yasutomi, Yasuhiro [Reprint author]
CS Department of Bioregulation, Mie University School of Medicine, 2-174 Edobashi, Tsu, Mie, 514-8507, Japan
yasutomi@doc.medic.mie-u.ac.jp
SO Cancer Gene Therapy, (July, 2001) Vol. 8, No. 7, pp. 483-490. print.
ISSN: 0929-1903.
DT Article
LA English
ED Entered STN: 11 Sep 2002
Last Updated on STN: 11 Sep 2002
AB One of the main objectives of cancer immunotherapy is the activation and increase in number of antitumor effector cells. Recently, genetically modified tumor cell vaccines have been proposed for elicitation of antitumor effector cells. Native alpha antigen (alpha Ag) (also known as MPT59 and antigen 85B) of mycobacteria, which cross-reacts among mycobacteria species, may play an important biological role in host-pathogen interaction because it elicits various helper T-cell type 1 immune responses. To assess the induction of antitumor immune responses by alpha Ag, mouse tumor cell lines transfected with cDNA of alpha Ag from Mycobacterium kansasii were established, and the possibility of producing a tumor cell vaccine for induction of antitumor effects was explored. Transfection of tumor cell lines with an alpha Ag gene lead to primary tumor rejection and the establishment of protective immunity to nontransfected original tumor cell lines in Mycobacterium bovis bacillus Calmette-Guerin (BCG)-primed and unprimed mice. Mice immunized with tumor cell lines transfected with the alpha Ag gene showed delayed-type hypersensitivity responses in vivo and proliferative responses together with induction of interferon-gamma of spleen cells against nontransfected wild-type tumor cell lines in in vitro experiments. Moreover, immunization of mice with alpha Ag-expressing tumor cells elicited tumor-specific and cytotoxic T lymphocyte (CTL) epitope peptide-specific CD8+ CTLs. The results of this study provided evidence of the potential usefulness of alpha Ag in tumor cell vaccines.

L4 ANSWER 24 OF 47 USPATFULL on STN
AN 2000:7197 USPATFULL
TI Mycobacterial secretory expression vectors and transformants
IN Yamada, Takeshi, Nagasaki-ken, Japan
Matsuo, Kazuhiro, Kaswaski, Japan
Yamaguchi, Ryuji, Kawasaki, Japan
Yamazaki, Akihiro, Kawasaki, Japan
PA Ajinomoto, Co., Inc., Tokyo, Japan (non-U.S. corporation)
Takeshi Yamada, Nagasaki-ken, Japan (non-U.S. corporation)
PI US 6015696 20000118
AI US 1994-193899 19940209 (8)
RLI Continuation of Ser. No. US 1990-531448, filed on 31 May 1990, now abandoned
PRAI JP 1989-135855 19890531
JP 1990-64310 19900316
DT Utility
FS Granted
EXNAM Primary Examiner: Railey, II, Johnny F.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 737

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A secretory vector expressed in mycobacteria comprising a promoter, a signal sequence having ligated therewith a DNA nucleotide sequence encoding heterologous polypeptide and replicator region capable of replication in mycobacteria is disclosed. A transformant that has been transformed with the secretory vector, as well as a vaccine comprising the transformant is provided.

L4 ANSWER 25 OF 47 USPATFULL on STN
AN 1999:36712 USPATFULL
TI Anti-AIDS secretory recombinant BCG vaccine
IN Matsuo, Kazuhiro, Kawasaki, Japan
Chujo, Yoshitomo, Kawasaki, Japan
Yamazaki, Akihiro, Kawasaki, Japan
Honda, Mitsuo, Mitaka, Japan
Yamazaki, Shudo, Higashiyamato, Japan
Tasaka, Hiromichi, Kure, Japan
PA Ajinomoto Co., Inc., Tokyo, Japan (non-U.S. corporation)
Japan as represented by Director General of Agency of National Institute of Health, Tokyo, Japan (non-U.S. government)
PI US 5885580 19990323
AI US 1997-972089 19971117 (8)
RLI Division of Ser. No. US 1996-619512, filed on 29 Mar 1996, now abandoned
PRAI JP 1994-178462 19940729
DT Utility
FS Granted
EXNAM Primary Examiner: Stucker, Jeffrey; Assistant Examiner: Park, Hankyel T.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A vaccine containing Mycobacterium bovis BCG which secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of a secretory protein, a carrier, having a signal peptide. BCG constituting the present invention secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of an α-antigen derived from mycobacteria. Said fusion protein has significantly increased antigenicity and immunogenicity. Therefore, when it is inoculated into animals, it is efficiently recognized by B cells which recognize said antigen, thereby effectively inducing the production of an antibody to said antigen. When said BCG itself is inoculated into animals, it continuously secretes said fusion protein in the bodies of the animals while continuously propagating therein. Therefore, said BCG is an extremely useful vaccine.

L4 ANSWER 26 OF 47 USPATFULL on STN
AN 1999:4042 USPATFULL
TI Anti-acids secretory recombinant BCG vaccine
IN Matsuo, Kazuhiro, Kawasaki, Japan
Chujo, Yoshitomo, Kawasaki, Japan
Yamazaki, Akihiro, Kawasaki, Japan
Honda, Mitsuo, Mitaka, Japan
Yamazaki, Shudo, Higashiyamato, Japan
Tasaka, Hiromichi, Kure, Japan
PA Ajinomoto Co., Inc., Tokyo, Japan (non-U.S. corporation)
Japan as represented by Director General of Agency of National Institute of Health, Tokyo, Japan (non-U.S. corporation)
PI US 5858369 19990112
AI US 1997-975699 19971121 (8)
RLI Continuation of Ser. No. US 1996-619512, filed on 29 Mar 1996, now abandoned

PRAI JP 1994-178462 19940729
DT Utility
FS Granted
EXNAM Primary Examiner: Stucker, Jeffrey; Assistant Examiner: Park, Hankyel T.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1514
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A vaccine containing Mycobacterium bovis BCG which secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of a secretory protein, a carrier, having a signal peptide. BCG constituting the present invention secretes a fusion protein to be obtained by inserting a foreign antigen peptide into the molecular surface of an α-antigen derived from mycobacteria. Said fusion protein has significantly increased antigenicity and immunogenicity. Therefore, when it is inoculated into animals, it is efficiently recognized by B cells which recognize said antigen, thereby effectively inducing the production of an antibody to said antigen. When said BCG itself is inoculated into animals, it continuously secretes said fusion protein in the bodies of the animals while continuously propagating therein. Therefore, said BCG is an extremely useful vaccine.

L4 ANSWER 27 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:340573 CAPLUS
DN 125:8464
TI Anti-AIDS secretory recombinant BCG vaccine containing α-antigen of acid-fast bacterium to enhance antigenicity
IN Matsuo, Kazuhiro; Chujo, Yoshitomo; Yamazaki, Akihiro; Honda, Mitsuo; Yamazaki, Shudo; Tasaka, Hiromichi
PA Ajinomoto Co., Inc., Japan; Japan, Agency of National Institute of Health
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9604009	A1	19960215	WO 1995-JP1515	19950731
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CN 1136280	A	19961120	CN 1995-190959	19950731
	EP 745386	A1	19961204	EP 1995-926523	19950731
	EP 745386	B1	20040204		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 258986	T	20040215	AT 1995-926523	19950731
	US 5885580	A	19990323	US 1997-972089	19971117
	US 5858369	A	19990112	US 1997-975699	19971121
PRAI	JP 1994-178462	A	19940729		
	WO 1995-JP1515	W	19950731		
	US 1996-619512	B3	19960329		

AB A vaccine containing Mycobacterium bovis BCG which secretes a fused protein obtained by inserting a foreign antigen peptide to the surface of a mol. of a secreted protein having a signal peptide as a carrier. The BCG secretes a fused protein obtained by inserting a foreign antigen peptide to the surface of a mol. of an α-antigen originating in an acid-fast bacterium. The fused protein has extremely enhanced antigenicity and can efficiently induce the production of an antibody against the α-antigen in animals. When the BCG can serve as a live vaccine; it continues to grow and secrete the fused protein in the animal body. Preparation of recombinant secretion vectors encoding fusion protein containing α-antigen and the epitope of V3 surface antigen of

HIV-1 was shown and their antigenicity were demonstrated in vivo. The antibodies thus produced also cross-react to V3 epitopes of types Thai-A and Thai-B.

L4 ANSWER 28 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 11
AN 1996:21760 BIOSIS
DN PREV199698593895
TI Protective immune responses induced by secretion of a chimeric soluble protein from a recombinant Mycobacterium bovis bacillus Calmette-Guerin vector candidate vaccine for human immunodeficiency virus type 1 in small animals.
AU Honda, Mitsuo [Reprint author]; Matsuo, Kazuhiro; Nakasone, Tadashi; Okamoto, Yukari; Yoshizaki, Hitomi; Kitamura, Katsuhiko; Sugiura, Wataru; Watanabe, Kuhomi; Fukushima, Yoshiko; Haga, Shinji; Katsura, Yoshimoto; Tasaka, Hiromichi; Komuro, Katsutoshi; Yamada, Takeshi; Asan, Toshihiko; Yamazaki, Akihiro; Yamazaki, Shudo
SO Proceedings of the National Academy of Sciences of the United States of America, (1995) Vol. 92, No. 23, pp. 10693-10697.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article
LA English
ED Entered STN: 12 Jan 1996
Last Updated on STN: 12 Jan 1996
AB A recombinant Mycobacterium bovis bacillus Calmette-Guerin (BCG) vector-based vaccine that secretes the V3 principal neutralizing epitope of human immunodeficiency virus (HIV) could induce immune response to the epitope and prevent the viral infection. By using the Japanese consensus sequence of HIV-1, we successfully constructed chimeric protein secretion vectors by selecting an appropriate insertion site of a carrier protein and established the principal neutralizing determinant (PND)-peptide secretion system in BCG. The recombinant BCG (rBCG)-inoculated guinea pigs were initially screened by delayed-type hypersensitivity (DTH) skin reactions to the PND peptide, followed by passive transfer of the DTH by the systemic route. Further, immunization of mice with the rBCG resulted in induction of cytotoxic T lymphocytes. The guinea pig immune antisera showed elevated titers to the PND peptide and neutralized HIV-MN, and administration of serum IgG from the vaccinated guinea pigs was effective in completely blocking the HIV infection in thymus/liver transplanted severe combined immunodeficiency (SCID)/hu or SCID/PBL mice. In addition, the immune serum IgG was shown to neutralize primary field isolates of HIV that match the neutralizing sequence motif by a peripheral blood mononuclear cell-based virus neutralization assay. The data support the idea that the antigen-secreting rBCG system can be used as a tool for development of HIV vaccines.

L4 ANSWER 29 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 12
AN 1995:157783 BIOSIS
DN PREV199598172083
TI Delayed-type hypersensitivity to a recombinant mycobacterial antigen, MPB64, in guinea pigs sensitized to Mycobacterium tuberculosis or Mycobacterium bovis BCG.
AU Haga, Shinji; Yamaguchi, Ryuji; Nagai, Sadamu; Matsuo, Kazuhiro; Yamazaki, Akihiro; Nakamura, Reiko M. [Reprint author]
CS 1-23-1, Toyama, Shinjuku-ku, Tokyo 162, Japan
SO Journal of Leukocyte Biology, (1995) Vol. 57, No. 2, pp. 221-225.
CODEN: JLBIE7. ISSN: 0741-5400.
DT Article
LA English
ED Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995
AB Recombinant MPB64 (rMPB64), a mycobacterial antigen, was obtained from an

Escherichia coli clone transformed with a recombinant expression vector, pMAL64c. The rMPB64 was examined for the activity to elicit delayed-type hypersensitivity (DTH) in guinea pigs injected with live Mycobacterium tuberculosis H37Rv or live M. bovis BCG Tokyo. It was found that rMPB64 has the same reactivity as native MPB64 (nMPB64) or MPT64 (nMPT64) and the potency to elicit DTH was 13.4 times higher than that of PPD. Because MPB64 is secreted only by living M. tuberculosis and some strains of BCG, it is possible to use this antigen for the diagnosis of tuberculosis.

L4 ANSWER 30 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 13
AN 1994:110138 BIOSIS
DN PREV199497123138
TI Cytotoxic T lymphocyte response in mice induced by a recombinant BCG vaccination which produces an extracellular alpha antigen that fused with the human immunodeficiency virus type 1 envelope immunodominant domain in the V3 loop.
AU Kameoka, Masanori; Nishino, Yoshii; Matsuo, Kazuhiro; Ohara, Naoya; Kimura, Takuro; Yamazaki, Akihiro; Yamada, Takeshi; Ikuta, Kazuyoshi [Reprint author]
CS Section Serology, Institute Immunological Science, Hokkaido University, Kita-ku, Sapporo 060, Japan
SO Vaccine, (1994) Vol. 12, No. 2, pp. 153-158.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 14 Mar 1994
Last Updated on STN: 14 Mar 1994
AB The host immune response of cell-mediated immunity, particularly that of cytotoxic T lymphocytes (CTLs), is a major immune defence mechanism which may provide resistance to a human immunodeficiency virus type 1 (HIV-1) spread leading to acquired immune deficiency syndrome (AIDS). To prevent the accompanying activity of HIV-1 proteins responsible for the loss of helper T-lymphocyte function, it is crucial to develop a live attenuated recombinant vaccine expressing only T- or both T- and B-cell epitopes. Here, we examined the expression of the HIV-1 Env protein V3 region (15 amino acids from Arg-315 to Lys-329) in Mycobacterium bovis BCG as a fused form with an extracellular alpha antigen of Mycobacterium kansasii. Balb/c mice inoculated with this recombinant BCG (rBCG), rapidly induced V3 peptide-specific CTLs. Target cell lysis was restricted to the murine class I major histocompatibility complex, H-2-d. A similar CTL response was also elicited after Balb/c mice were immunized with the same rBCG even when pre-inoculated with non-recombinant BCG. Thus, the rapid induction of HIV-1-specific CTLs indicates that this vaccine may be a therapeutic approach to preventing progression to AIDS.

L4 ANSWER 31 OF 47 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 14
AN 1993:252168 BIOSIS
DN PREV199395131343
TI Cloning and sequencing of the gene for alpha antigen from Mycobacterium avium and mapping of B-cell epitopes.
AU Ohara, Naoya [Reprint author]; Matsuo, Kazuhiro; Yamaguchi, Ryuji; Yamazaki, Akihiro; Tasaka, Hiromichi; Yamada, Takeshi
CS Sch. Dentistry, Nagasaki University, Sakamoto 1-7-1, Nagasaki City 852, Japan
SO Infection and Immunity, (1993) Vol. 61, No. 4, pp. 1173-1179.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
OS EMBL-X63437
ED Entered STN: 21 May 1993

Last Updated on STN: 21 May 1993

AB The complete nucleotide sequence of alpha antigen secreted from Mycobacterium avium (A-alpha) was determined. The gene encodes 330 amino acids, including 40 amino acids for the signal peptide, followed by 290 amino acids for the mature protein with a molecular mass of 30,811 Da. This is the first sequence of A-alpha. Comparisons between A-alpha antigens of Mycobacterium leprae, Mycobacterium bovis BCG, and Mycobacterium kansasii showed highly homologous regions which suggested a conserved functional domain and two less homologous regions. Serological analysis of recombinant A-alpha, expressed by a series of deletion constructs, indicated the possibility that A-alpha carries at least six B-cell epitopes. The three antigenic determinants were common to Mycobacterium tuberculosis, M. kansasii, and M. avium. The results also suggested the possibility that there are three species-specific epitopes.

L4 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:201950 CAPLUS
DN 114:201950
TI Fusion protein based epitope mapping of the MPB57 protein from Mycobacterium bovis BCG and its epitope insertion into the native protein
AU Yamaguchi, Ryuji; Matsuo, Kazuhiro; Yamazaki, Akihiro; Kagawa, Hiroaki; Nagai, Sadamu; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co. Inc., Kawasaki, 210, Japan
SO Canadian Journal of Microbiology (1991), 37(1), 7-13
CODEN: CJMIAZ; ISSN: 0008-4166
DT Journal
LA English
AB The gene coding for the 12-kDa protein (MPB57) of M. bovis BCG was recently cloned and sequenced. To map linear B-cell epitopes by β-galactosidase fusion proteins, convenient vectors (pUR278S, pUR288S, and pUR289S) were constructed with the SmaI site. Based on recognition by polyclonal antibodies, 2 epitope regions on the MPB57 protein were identified, both of which corresponded to the amino acid sequences Glu20 to Val45 (26 residues, epitope I region) and Ile78 to Leu86 (9 residues, epitope II). Complementary oligonucleotides encoding epitope II were synthesized, polymerized by a ligase reaction, inserted into the native MPB67 protein gene, and expressed in Escherichia coli, giving rise to epitope-inserted proteins. Their stability and potential uses are described.

L4 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 15
AN 1991:158537 CAPLUS
DN 114:158537
TI Cloning and expression of gene for antigen MPB70 of Mycobacterium bovis (BCG)
IN Yamada, Takeshi; Yamaguchi, Takashi; Matsuo, Kazuhiro; Yamazaki, Akihiro
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02195895	A	19900802	JP 1989-13270	19890124
PRAI	JP 1989-13270		19890124		

AB The gene encoding the BCG antigen MPB70 is cloned, sequenced, and its amino acid sequence deduced. Preparation of the MPB70 antigen as a fusion protein with the N-terminal region of human interleukin-2 is also shown. The antigen is useful in diagnosis of cattle-specific tuberculosis. The gene for antigen MPB70 was cloned from the chromosomal DNA library of the BCG (Tokyo strain) prepared in pUC19. The

signal sequence, the promoter region, and the Shine/Dalgarno sequence of the gene were also identified. Plasmid pT13SNco encoding the fusion protein from the trp promoter was provided and the chimeric gene expressed in Escherichia coli.

L4 ANSWER 34 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 16
AN 1991:581526 CAPLUS
DN 115:181526
TI Determinant of antigen MPB57 of Mycobacterium bovis BCG and its chemical or recombinant preparation
IN Yamaguchi, Takashi; Matsuo, Kazuhiro; Yamazaki, Akihiro; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02169599	A	19900629	JP 1988-322515	19881221
PRAI JP 1988-322515		19881221		

AB A synthetic gene encoding a determinant of the MPB57 antigen of Mycobacterium bovis BCG (BCG) is cloned and expressed as a polymer in Escherichia coli. The recombinant determinant can be used for diagnosis of tuberculosis. The Sau 3AI fragment of plasmid pKKM 57 carrying a synthetic gene encoding the MPB57 antigen of BCG was used to prepare an expression library in plasmids pUR 278, 288, and 289. Polyclonal antibody to MPB57 was used to screen for the gene encoding the determinant and its amino acid sequence deduced. Plasmid pKKM 57(A) carrying a synthetic gene encoding the polymeric antigen determinant of the MPB 57 protein and prepared and expressed in E. coli.

L4 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 17
AN 1990:435890 CAPLUS
DN 113:35890
TI Cloning and expression of antigen MPB57 protein gene of Mycobacterium bovis BCG
IN Yamaguchi, Takashi; Matsuo, Kazuhiro; Yamazaki, Akihiro; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02053496	A	19900222	JP 1988-205444	19880818
PRAI JP 1988-205444		19880818		

AB The antigen MPB57 protein gene of M. bovis BCG was cloned and expressed in Escherichia coli. The antigen gene was cloned on the vector plasmid pKK233-2 to generate the recombinant plasmid pKKM57. The sequence of the gene is given.

L4 ANSWER 36 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:242070 CAPLUS
DN 114:242070
TI Mycobacterium kansasii α antigen gene cloning and expression
IN Matsuo, Kazuhiro; Yamaguchi, Takashi; Yamazaki, Akihiro; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02308793	A	19901221	JP 1989-128091	19890522
PRAI	JP 1989-128091		19890522		

AB α-Antigen of of M. kansasii is cloned and expressed in Escherichia coli. The antigen is useful for the diagnosis of tuberculosis-like, M. kansasii-associated respiratory diseases. The gene was cloned from a genomic library of M. kansasii ATCC12478 on pUC18 using a fragment of α-antigen gene of BCG bacteria as probe. Plasmid pUCK201 encoding the α-antigen was constructed and transformed into E. coli. By aerobic fermentation, the E. coli transformants produced and secreted α-antigen (mol. weight, 30000).

L4 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:466177 CAPLUS
DN 115:66177
TI Mycobacterial secretory expression vectors and transformants for use as live vaccine
IN Matsuo, Kazuhiro; Yamaguchi, Ryuji; Yamazaki, Akihiro; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan
SO Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 400973	A1	19901205	EP 1990-305849	19900530
	EP 400973	B1	19960731		
	R: DE, FR, GB				
	JP 03072888	A	19910328	JP 1990-64310	19900316
	JP 2903414	B2	19990607		
	US 6015696	A	20000118	US 1994-193899	19940209
PRAI	JP 1989-135855	A	19890531		
	JP 1990-64310	A	19900316		
	US 1990-531448	B1	19900531		

AB Secretory expression vectors for the expression of heterologous genes in mycobacteria, especially Mycobacterium bovis BCG (BCG), are prepared Mycobacteria harboring the expression vectors and producing and secreting the heterologous proteins are useful as live vaccines. The use of recombinant mycobacteria as live vaccines is safe and also hasthe following advantages: long-lasting activity, strong antigenicity because of the strong adjuvant activity of BCG, and low cost. The expression of gene for α-antigen of M. kansasii, β-lactamase of Escherichia coli, and a fusion protein of α-antigen and the B cell epitope of HIV-1 gag protein p17 protein were shown. All the described proteins were successfully secreted into the culture medium.

L4 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:22059 CAPLUS
DN 114:22059
TI Establishment of a foreign antigen secretion system in mycobacteria
AU Matsuo, Kazuhiro; Yamaguchi, Ryuji; Yamazaki, Akihiro; Tasaka, Hiromichi; Terasaka, Kunihiro; Totsuka, Masayoshi; Kobayashi, Koumei; Yukitake, Hideharu; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co. Inc., Kawasaki, 210, Japan
SO Infection and Immunity (1990), 58(12), 4049-54
CODEN: INFIBR; ISSN: 0019-9567
DT Journal
LA English

AB In order to develop recombinant Mycobacterium bovis BCG into a useful multivaccine vehicle, a foreign antigen secretion system was established in mycobacteria in which an extracellular α antigen of M. kansasii was utilized as a carrier. By using this system, a B-cell epitope (Glu-12-Leu-Asp-Arg-Trp-Glu-Lys-Ile-19) of human immunodeficiency virus type 1 p17gag, which was identified by a fusion protein-based method, has been successfully obtained from BCG along with the α antigen. This is the first report of expression and secretion of a foreign viral antigen from BCG. It is possible that the system can become a universal vaccination vehicle applicable to protection against various infectious diseases.

L4 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:453246 CAPLUS
DN 113:53246
TI Cloning and expression of the gene for the cross-reactive α antigen of Mycobacterium kansasii
AU Matsuo, Kazuhiro; Yamaguchi, Ryuji; Yamazaki, Akihiro; Tasaka, Hiromichi; Terasaka, Kunihiro; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co. Inc., Kawasaki, 210, Japan
SO Infection and Immunity (1990), 58(2), 550-6
CODEN: INFIBR; ISSN: 0019-9567
DT Journal
LA English
AB The gene for the extracellular α antigen of M. kansasii was cloned by using the α-antigen gene fragments of M. bovis BCG as probes. Gene anal. revealed that this gene encodes 325 amino acid residues, including 40 aa for the signal peptide, followed by 285 aa for the mature protein. A comparison of the nucleotide sequences of the genes isolated from these 2 mycobacterial species showed that the levels of DNA and aa homol. were 84.8 and 89.1%, resp. The hydropathy profiles were also compared, and 2 highly changed hydrophilic regions were observed, which might account for the antigenic diversity of this antigen or its acquirement of antigenic specificity.

L4 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 18
AN 1990:453702 CAPLUS
DN 113:53702
TI Cloning of gene for MPB 64 protein of Mycobacterium bovis BCG
IN Yamaguchi, Takashi; Matsuo, Kazuhiro; Yamazaki, Akihiro; Abe, Choji; Nagai, Sadamu; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01247094	A	19891002	JP 1988-77366	19880330

PRAI JP 1988-77366 19880330
AB The gene encoding protein MPB64 of M. bovis BCG, a protein that is useful for diagnosis of tuberculosis, is cloned and its amino acid sequence deduced. An Escherichia coli expression plasmid, pKKM64, is also provided and used for expression of the gene.

L4 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 19
AN 1990:153072 CAPLUS
DN 112:153072
TI Molecular cloning and expression of the gene for the α-antigen of Mycobacterium bovis BCG
IN Matsuo, Kazuhiro; Yamaguchi, Takashi; Yamazaki, Akihiro; Yamada, Takeshi
PA Ajinomoto Co., Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01144994	A	19890607	JP 1987-305250	19871202
PRAI JP 1987-305250		19871202		

AB The gene encoding α-antigen of Mycobacterium bovis BCG, that can be used in manufacturing tuberculin, is cloned and sequenced. An Escherichia coli expression plasmid is also provided. Plasmid pαL-1 containing the gene encoding the α-antigen of M. bovis BCG Tokyo was found by screening of a chromosomal DNA library and the DNA sequence of the gene determined Expression plasmid pKKα-2 was then constructed and its gene product was identified.

L4 ANSWER 42 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:568195 CAPLUS
DN 111:168195
TI Cloning and characterization of the gene for immunogenic protein MPB64 of Mycobacterium bovis BCG
AU Yamaguchi, Ryuji; Matsuo, Kazuhiro; Yamazaki, Akihiro; Abe, Chiyoji; Nagai, Sadamu; Terasaka, Kunihiro; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan
SO Infection and Immunity (1989), 57(1), 283-8
CODEN: INFIBR; ISSN: 0019-9567
DT Journal
LA English
AB The gene for immunogenic protein MPB64 found in culture filtrates of only Mycobacterium tuberculosis and some strains of M. bovis BCG was cloned by using a single-probe method and was sequenced. The gene anal. revealed that the structural gene for MPB64 consisted of 618 base pairs, and its deduced mol. weight was 22,400. Twenty-two amino acids for a putative signal peptide and 205 amino acids for the MPB64 protein were observed In the coding region, the third letter of the codon showed a biased codon and a high G+C content (78.5%). The gene was expressed in Escherichia coli by using an E. coli expression vector. The product showed migration similar to that of the authentic MPB64 protein by electrophoresis and reacted with the polyclonal and the monoclonal antibodies raised against the MPB64 protein. The strict specificity of MPB64 could be applied to immunodiagnosis of tuberculosis.

L4 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:592690 CAPLUS
DN 111:192690
TI Complete nucleotide sequence of immunogenic protein MPB70 from Mycobacterium bovis BCG
AU Terasaka, Kunihiro; Yamaguchi, Ryuji; Matsuo, Kazuhiro; Yamazaki, Akihiro; Nagai, Sadamu; Yamada, Takeshi
CS Res. Inst. Microb. Dis., Osaka Univ., Osaka, 565, Japan
SO FEMS Microbiology Letters (1989), 58(2-3), 273-6
CODEN: FMLED7; ISSN: 0378-1097
DT Journal
LA English
AB The extracellular protein MPB70 is a heat-stable immunogenic protein which was found in the culture filtrate of M. bovis BCG Japanese. The authors determined the complete nucleotide and amino acid sequences of MPB70. The N-terminal sequence revealed that the signal peptide (SP) consisted of 30 amino acids and that the mature protein had 163 amino acids with a mol. weight of 16,305. The SP displayed a characteristic feature of an Ala-rich property which would be efficient in a SP function.

L4 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:148838 CAPLUS
DN 110:148838
TI Cloning and expression of the Mycobacterium bovis BCG gene for extracellular α antigen
AU Matsuo, Kazuhiro; Yamaguchi, Ryuji; Yamazaki, Akihiro; Tasaka, Hiromichi; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co. Inc., Kawasaki, 210, Japan
SO Journal of Bacteriology (1988), 170(9), 3847-54
CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English
AB The gene for the extracellular α antigen of M. bovis BCG was cloned by using a single probe restricted to G or C in the third position. This technique should have great potential for the isolation of mycobacterial antigen genes. The gene anal. revealed that the α antigen gene encoded 323 amino acid residues, including 40 amino acids for signal peptide followed by 283 amino acids for mature protein. This is the first report on the structure of the mycobacterial signal peptide. The promoter-like sequence and ribosome-binding site were observed upstream of the open reading frame. In the coding region, the third position of the codon showed high G + C content (86%). The gene was expressed as an unfused protein in Escherichia coli by using an E. coli expression vector. This protein, which reacted with polyclonal antibody raised α antigen from M. tuberculosis, would be applicable to the immunodiagnosis of tuberculosis.

L4 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:491323 CAPLUS
DN 111:91323
TI Immunogenic protein MPB57 from Mycobacterium bovis BCG: molecular cloning, nucleotide sequence and expression
AU Yamaguchi, Ryuji; Matsuo, Kazuhiro; Yamazaki, Akihiro; Nagai, Sadamu; Terasaka, Kunihiro; Yamada, Takeshi
CS Cent. Res. Lab., Ajinomoto Co. Inc., Kawasaki, 210, Japan
SO FEBS Letters (1988), 240(1-2), 115-17
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
AB A single-probe method was used to clone the gene for an immunogenic MPB57 protein of M. bovis BCG. The nucleotide sequence includes an ORF of 300 base pairs encoding a protein of 99 amino acids with an Mr of 10,818. This cloned gene was expressed in an Escherichia coli expression vector to give a mature protein which reacted with a polyclonal antibody raised against MPB57.

L4 ANSWER 46 OF 47 JAPIO (C) 2007 JPO on STN
AN 2006-149234 JAPIO
TI PRIME-BOOST VACCINATION METHOD
IN HONDA MITSUO; MATSUO KAZUHIRO; HAMANO RYUICHI; IZUMI YASUYUKI; PROMKHATKAEW DUANTHANORM; BALACHANDRA KRUAVON; SUTTHENT RUENGPUNG
PA JAPAN SCIENCE & TECHNOLOGY AGENCY
THAILAND MINISTRY OF PUBLIC HEALTH DEPARTMENT OF MEDICAL SCIENCES NATIONAL INSTITUTE OF INFECTIOUS DISEASES
PI JP 2006149234 A 20060615 Heisei
AI JP 2004-341283 (JP2004341283 Heisei) 20041125
PRAI JP 2004-341283 20041125
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2006
AB PROBLEM TO BE SOLVED: To provide a new vaccination strategy to HIV-1 CEF01AE.
SOLUTION: The prime-boost vaccination method comprises a priming step with a recombinant BCG vaccine and one or more boosting steps with the recombinant vaccine. Both of the recombinant BCG vaccine for priming step and the recombinant vaccine for boosting step contain at least one gene of HIV-1 CRF01AE strain.

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L4   ANSWER 47 OF 47  JAPIO  (C) 2007 JPO  on STN
AN   2002-068990    JAPIO
TI   Th1-TYPE CYTOKINE ACTIVATOR, METHOD FOR PRODUCING THE SAME, ATOPIC DISEASE
     PROPHYLACTIC/THERAPEUTIC VACCINE AND METHOD FOR PRODUCING THE VACCINE, AND
     METHOD FOR CONVERSION INTO Th1-TYPE CYTOKINE-DOMINANT CONDITION
IN   YASUTOMI YASUHIRO; MIZUTANI HITOSHI; MATSUO KAZUHIRO
PA   JAPAN BCG SEIZO KK
     YASUTOMI YASUHIRO
     MIZUTANI HITOSHI
     MATSUO KAZUHIRO
PI   JP 2002068990 A  20020308 Heisei
AI   JP 2000-261016 (JP2000261016 Heisei) 20000830
PRAI JP 2000-261016      20000830
SO   PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2002
AB   PROBLEM TO BE SOLVED: To provide a vaccine functioning to bring a
     Th2-dominant cytokine condition to Th1-dominant cytokine condition, to
     provide a method for producing the vaccine, and to provide a therapeutic
     method using the vaccine so as to contribute to treating and preventing
     various atopic diseases.
     SOLUTION: The objective Th1-type cytokine activator is characterized by
     mainly comprising one kind among BCG heat-killed bacterium and
     its microbial cell destruction products. The method for producing the
     Th1-type cytokine activator is provided. The therapeutic method using the
     vaccine as the activator is provided.
     COPYRIGHT: (C)2002,JPO


=> e kanekiyo masaru/au
E1          12     KANEKIYO MASAHITO/AU
E2          16     KANEKIYO MASAKO/AU
E3          10 --> KANEKIYO MASARU/AU
E4           1     KANEKIYO MASATO/AU
E5          10     KANEKIYO MITSUGI/AU
E6           4     KANEKIYO MITSUGU/AU
E7           3     KANEKIYO N/AU
E8           2     KANEKIYO NAOKO/AU
E9           9     KANEKIYO NOBORU/AU
E10          3     KANEKIYO NORIAKI/AU
E11          2     KANEKIYO NORIFUKU/AU
E12          2     KANEKIYO NORIHIKO/AU

=> s e3
L5          10 "KANEKIYO MASARU"/AU

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6            5 DUP REM L5 (5 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L6   ANSWER 1 OF 5  USPATFULL on STN
AN     2006:247197  USPATFULL
TI     Recombination bcg vaccine
IN     Honda, Mitsuo, Tokyo, JAPAN
       Matsuo, Kazuhiro, Kanagawa, JAPAN
         Kanekiyo, Masaru, Tokyo, JAPAN
PI     US 2006210586       A1  20060921
AI     US 2003-524586      A1  20030813 (10)
       WO 2003-JP10303         20030813
                               20050331  PCT 371 date
PRAI   JP 2002-237610      20020816
```

DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 640
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A recombinant BCG vaccine being transformed with an expression vector that has a polynucleotide encoding a foreign antigenic protein, wherein the polynucleotide is a modified one in which a third position of each codon is substituted with G or C without a change of an amino acid. This recombinant BCG vaccine has an excellent expression rate of antigenic protein and, as a result, capable of inducing a sufficient immune response against target infectious disease, cancer, or the like at the same dose as that of the typical BCG vaccine.

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1086167 CAPLUS
DN 145:453348
TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity. [Erratum to document cited in CA143:365230]
AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Yamamoto, Naoki; Honda, Mitsuo
CS Division of Experimental Animal Research, AIDS Research Center, Division of Biosafety Control and Research, National Institute of Infectious Diseases, Toyama 1-23-1, Shinjuku-ku, Tokyo, 162-8640, Japan
SO Journal of Virology (2006), 80(20), 10288
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB On page 12873, Table 1, in groups 1, 2 and 3, rBCG was primed at week 3, followed by booster immunization of rDIs at weeks 50 and 54. In the same table, groups 4 and 5, rDIs was primed at weeks 0 and 12, followed by booster immunization of rBCG at week 50. Then all animals were challenged with virulent SHIV KS661c at week 57. On page 12874, Figure 2: The weeks after immunization shown on the x axis in panel A should read: "3, 7, 11, 19, 27, 35, 50, 53, 54, and 56.". The weeks after immunization shown on the x axis in panel B should read: "0, 4, 8, 16, 24, 32, 50, 52, 53, 54, and 56.". Although the patterns and magnitudes of the kinetics were almost the same as the original ones, the standard deviation of the ELISPOT data at the peak response at 54 wk after immunization was 500, which was five times more than originally reported. Spot-forming cells were counted by using a KS ELISPOT system after 35 wk of immunization. Before that, we counted SFCs using an inverted microscope. On page 12878, Acknowledgments, paragraph 1, the last sentence of the paragraph should be deleted. These changes do not alter the conclusions of the article.

L6 ANSWER 3 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:8301 BIOSIS
DN PREV200600008996
TI Priming-boosting vaccination with recombinant Mycobacterium bovis bacillus Calmette-Guerin and a nonreplicating vaccinia virus recombinant leads to long-lasting and effective immunity.
AU Ami, Yasushi; Izumi, Yasuyuki; Matsuo, Kazuhiro; Someya, Kenji; Kanekiyo, Masaru; Horibata, Shigeo; Yoshino, Naoto; Sakai, Koji; Shinohara, Katsuaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki,

Shudo; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, Ctr AIDS Res, Shinjuku Ku, Toyama 1-23-1, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (OCT 2005) Vol. 79, No. 20, pp. 12871-12879.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 14 Dec 2005
Last Updated on STN: 14 Dec 2005
AB Virus-specific T-cell responses can limit immunodeficiency virus type 1 (HIV-1) transmission and prevent disease progression and so could serve as the basis for an affordable, safe, and effective vaccine in humans. To assess their potential for a vaccine, we used Mycobacterium bovis bacillus Calmette-Guerin (BCG)-Tokyo and a replication-deficient vaccinia virus strain (DIs) as vectors to express full-length gag from simian immunodeficiency viruses (SIVs) (rBCG-SIVgag and rDIsSIVgag). Cynomolgus macaques were vaccinated with either rBCG-SIVgag dermally as a single modality or in combination with rDIsSIVgag intravenously. When cynomologus macaques were primed with rBCG-SIVgag and then boosted with rDIsSIVgag, high levels of gamma interferon (IFN-gamma) spot-forming cells specific for SIV Gag were induced. This combination regimen elicited effective protective immunity against mucosal challenge with pathogenic simian-human immunodeficiency virus for the 1 year the macaques were under observation. Antigen-specific intracellular IFN-gamma activity was similarly induced in each of the macaques with the priming-boosting regimen. Other groups receiving the opposite combination or the single-modality vaccines were not effectively protected. These results suggest that a recombinant M. bovis BCG-based vector may have potential as an HIV/AIDS vaccine when administered in combination with a replication-deficient vaccinia virus DIs vector in a priming-boosting strategy.

L6 ANSWER 4 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 2
AN 2005:399376 BIOSIS
DN PREV200510190449
TI Mycobacterial codon optimization enhances antigen expression and virus-specific immune responses in recombinant Mycobactetium bovis bacille Calmette-Guerin expressing human immunodeficiency virus type 1 Gag.
AU Kanekiyo, Masaru; Matsuo, Kazuhiro; Hamatake, Makiko; Hamano, Takaichi; Ohsu, Takeaki; Matsumoto, Sohkichi; Yamada, Takeshi; Yamazaki, Shudo; Hasegawa, Atsuhiko; Yamamoto, Naoki; Honda, Mitsuo [Reprint Author]
CS Natl Inst Infect Dis, AIDS Res Ctr, Shinjuku Ku, 1-23-1 Toyama, Tokyo 1628640, Japan
mhonda@nih.go.jp
SO Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 8716-8723.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005
AB Although its potential for vaccine development is already known, the introduction of recombinant human immunodeficiency virus (HIV) genes to Mycobacterium bovis bacille Calmette-Guerin (BCG) has thus far elicited only limited responses. In order to improve the expression levels, we optimized the codon usage of the HIV type 1 (HIV-1) p24 antigen gene of gag (p24 gag) and established a codon-optimized recombinant BCG (rBCG)-p24 Gag which expressed a 40-fold-higher level of p24 Gag than did that of nonoptimized rBCG-p24 Gag. Inoculation of mice with the codon-optimized rBCG-p24 Gag elicited effective immunity, as evidenced by virus-specific lymphocyte proliferation, gamma interferon ELISPOT cell induction, and antibody production. In contrast, inoculation of animals with the nonoptimized rBCG-p24 Gag induced only low levels of immune responses.

Furthermore, a dose as small as 0.01 mg of the codon-optimized rBCG per animal proved capable of eliciting immune responses, suggesting that even low doses of a codon-optimized rBCG-based vaccine could effectively elicit HIV-1-specific immune responses.

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:162604 CAPLUS
DN 140:216160
TI Recombinant BCG vaccines against infection, cancer and other diseases
IN Honda, Mitsuo; Matsuo, Kazuhiro; Kanekiyo, Masaru
PA Japan Science and Technology Corporation, Japan; Japan as Represented by Director General of National Institute of Infectious Diseases
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004016280	A1	20040226	WO 2003-JP10303	20030813
	W: IN, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	EP 1535627	A1	20050601	EP 2003-788098	20030813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	US 2006210586	A1	20060921	US 2005-524586	20050331
PRAI	JP 2002-237610	A	20020816		
	WO 2003-JP10303	W	20030813		

AB A recombinant BCG vaccine obtained by transformation with an expression vector carrying a polynucleotide coding for an ecdemic antigenic protein, which recombinant BCG vaccine consists of a modified type polynucleotide comprising a polynucleotide having the third base of each of the codons thereof substituted with G or C without changing of the type of amino acid. This recombinant BCG vaccine excels in the amount of antigenic protein expressed, so that even with the same dosage as employed for conventional BCG vaccines, the recombinant BCG vaccine can induce satisfactory immune response to target infectious diseases, cancer, etc. In example, recombinant BCG comprising hsp60 gene and HIV-1 gag p24 gene was prepared for use as vaccine.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s (recombinant BCG)and(expression vector?)and (high g)
L7 3 (RECOMBINANT BCG) AND(EXPRESSION VECTOR?) AND (HIGH G)

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 3 DUP REM L7 (0 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 3 USPATFULL on STN
AN 2006:247197 USPATFULL
TI Recombination bcg vaccine
IN Honda, Mitsuo, Tokyo, JAPAN
Matsuo, Kazuhiro, Kanagawa, JAPAN
Kanekiyo, Masaru, Tokyo, JAPAN

PI	US 2006210586	A1	20060921	
AI	US 2003-524586	A1	20030813	(10)
	WO 2003-JP10303		20030813	
			20050331	PCT 371 date

PRAI JP 2002-237610 20020816
DT Utility
FS APPLICATION
LREP WENDEROTH, LIND & PONACK, L.L.P., 2033 K STREET N. W., SUITE 800, WASHINGTON, DC, 20006-1021, US
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 640
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A recombinant BCG vaccine being transformed with an expression vector that has a polynucleotide encoding a foreign antigenic protein, wherein the polynucleotide is a modified one in which a third position of each codon is substituted with G or C without a change of an amino acid. This recombinant BCG vaccine has an excellent expression rate of antigenic protein and, as a result, capable of inducing a sufficient immune response against target infectious disease, cancer, or the like at the same dose as that of the typical BCG vaccine.

L8 ANSWER 2 OF 3 USPATFULL on STN
AN 2005:254317 USPATFULL
TI Identification of virulence associated regions rd1 and rd5 leading to improve vaccine of m. bovis bcg and m. microti
IN Cole, Stewart, Clamart, FRANCE
Pym, Alexander S., London, UNITED KINGDOM
Brosch, Roland, Paris, FRANCE
Brodin, Priscille, Paris, FRANCE
Majlessi, Laleh, Montigny Le Bretonneux, FRANCE
Demangel, Caroline, Paris, FRANCE
Leclerc, Claude, Paris, FRANCE
PI US 2005220811 A1 20051006
AI US 2003-510021 A1 20030401 (10)
WO 2003-IB1789 20030401
20041001 PCT 371 date
PRAI EP 2002-290864 20020405
DT Utility
FS APPLICATION
LREP FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 5548
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a strain of M. bovis BCG or M. microti, wherein said strain has integrated part or all of the RD1 region responsible for enhanced immunogenicity of the tubercle bacilli, especially the ESAT-6 and CFP-10 genes. These strains will be referred as the M bovis BCG::RDI or M. microti::RD1 strains and are useful as a new improved vaccine for preventing tuberculosis and as a therapeutical product enhancing the stimulation of the immune system for the treatment of bladder cancer. These strains are also useful for the expression and presentation of heterologous antigens and molecule that are of therapeutic or prophylactic interest.

L8 ANSWER 3 OF 3 USPATFULL on STN
AN 2005:243031 USPATFULL
TI Identification and cloning of a mycobacterial antigen corresponding to a heparin-binding haemagglutinin
IN Menozzi, Franco, Mons-Hyon, BELGIUM
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PI US 6949345 B1 20050927
AI US 1998-192579 19981117 (9)
RLI Continuation of Ser. No. WO 1997-FR886, filed on 20 May 1997, PENDING
PRAI FR 1996-6168 19960517
DT Utility
FS GRANTED
EXNAM Primary Examiner: Swartz, Rodney P
LREP Nixon & Vanderhye P.C.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptide sequences enabling mycobacteria to adhere to host cells (e.g., epithelial cells). More particularly, the invention relates to a mycobacterial heparin-binding haemagglutinin type antigen from M. bovis ECG or M. tuberculosis. The invention also relates to a recombinant peptide sequence enabling mycobacteria to adhere to host cells. The polypeptides can be used to prepare vaccines against mycobacterial infections and for serological diagnosis of mycobacterial infections.

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L8 ANSWER 3 OF 3 USPATFULL on STN
SUMM . . . its genome. In one preferred embodiment of the invention, the recombinant host cell is BCG, but not exclusively, for which expression vectors directly usable for developing recombinant BCG for use in man or animal have been developed.
DETD The sequence of two pairs of oligonucleotides was derived from the internal HBHA peptide sequences. The generally high G +C content in the mycobacterial DNA has led the inventors to favour G or C in the third position of the. . .
DETD . . . was purified by electro-elution after migration in a 1% agarose gel using standard procedures (17) and finally cloned in the expression vector pKK388-1 (Clontech, Palo Alto, Calif., UA) previously restricted with NcoI and KpnI. The recombinant plasmid was then introduced into E.. . .
DETD . . . Coomassie blue shows the synthesis of a polypeptide of about 27 kDa in E. coli XL-1 Blue carrying the HBHA expression vector and derepressed by IPTG. This polypeptide, recognised in immunoblotting by a murine antiserum directed against the purified HBHA protein of. . . carrying the pKK388-1 vector with no insert, showing that its synthesis depends on the cloned BCG DNA sequence in the expression vector. As this is also the sequence coding for the BCG HBHA, it was surprising to observe that the recombinant polypeptide. . .